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Commonwealth of Pennsylvania **Department of Labor & Industry** Department of Education

2006-2007

Pennsylvania Career Guide

Governor Edward G. Rendell

17th Edition

The Pennsylvania Career Guide Can Help You Chart a Course to the Career of Your Choice



COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG



Dear Career Seeker,

Pennsylvania's growing economy needs workers who have the knowledge and skills to help employers deliver services and grow their companies.

Because you may spend some 86,000 hours of your life on the job, making informed career choices is critical. This year's *Pennsylvania Career Guide* will help you make the right choices.

This is not the same *Career Guide* you may have seen in other years. This year's guide has been completely redesigned to not only make it more interesting, but more focused on high priority occupations. The 2006-07 *Pennsylvania Career Guide* will help you investigate promising careers in occupations that are projected to continue growing in our dynamic economy.

To help employers, job seekers and investors stay competitive, the commonwealth has invested time and research in identifying potential areas of growth in the state's economy. Pennsylvania's targeted industry clusters and high priority occupations within these clusters provide the framework for developing a solid future workforce. This may sound complex, but the *Pennsylvania Career Guide* breaks it down by highlighting promising high priority occupations that are in demand, offer good wages and advancement opportunities.

Students approach their education and career search differently. No matter your level of experience or career goals, the *Pennsylvania Career Guide*'s three distinct sections will help you develop the most effective strategy for your particular personal and professional goals.

- **The Road: Getting Started** – Showcases different career options and helps assess interests and strengths.
- **The Map: Charting a Course** – Offers valuable, current data on wages, education and the job outlook for more than 250 growing occupations in Pennsylvania.
- **The Destination: Setting Your Sights** – Presents resources and options to help reach goals.

I encourage you to take advantage of this valuable tool and feel free to share your comments and feedback with the Department of Labor & Industry (877-493-3282), or the Department of Education (717-772-4857). I wish you the best for a successful career.

Sincerely,

A handwritten signature in blue ink that reads "Edward G. Rendell".

Edward G. Rendell
Governor

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A Note to Parents

Do parents make a difference? Yes, they do.

Students ranked parents as having the most influence on their career choice followed by friends, teachers, counselors, and siblings.

Parental involvement in high school students' educational and career development appears to be related to achievement, behavior, and attitudes.

Most parents believe they can lay the foundation for their child's career development by influencing them to become responsible and capable human beings.

Parents can help children understand their own abilities, skills, interests and preferences.

Help children identify favorite and strongest skills and abilities. Talk about skills learned and/or used at school, at home, at after school activities, at part-time jobs, or in hobbies.

Recognize what your children do well. This helps children identify their strengths.

Talk with children about their interests and preferences. Ask children what they like and dislike about an activity, task, assignment, hobby or job.

If a child has a part-time job or does volunteer work, help them reflect on the work environment, what is being learned, and how the work relates to their interests and preferences.

Talk with children about people they see working in their jobs. Discuss the work they are doing and the rewards and conditions associated with the jobs.

Encourage children to explore many careers rather than just one. It is important that students not make specific career decisions too early. In order to avoid disappointment, they should investigate many careers and have many options available to them. Choosing a career is a very long process and, as students mature, it is important to remember that their interests, goals and aptitudes may change.

Discuss your children's likes and dislikes for school subjects and school-related activities. Encourage them to take a wide range of courses and to become actively involved in extracurricular activities. Stay informed about their progress in school by periodically checking with teachers and school counselors.

Study the classified ads with your child. Start by discussing those jobs that provide the values that are important to them.

Encourage your child to do volunteer work and become involved in community activities. Volunteer work can help your child evaluate career plans. Information concerning where students can find volunteer work may be found in the Yellow Pages under "Social Services."

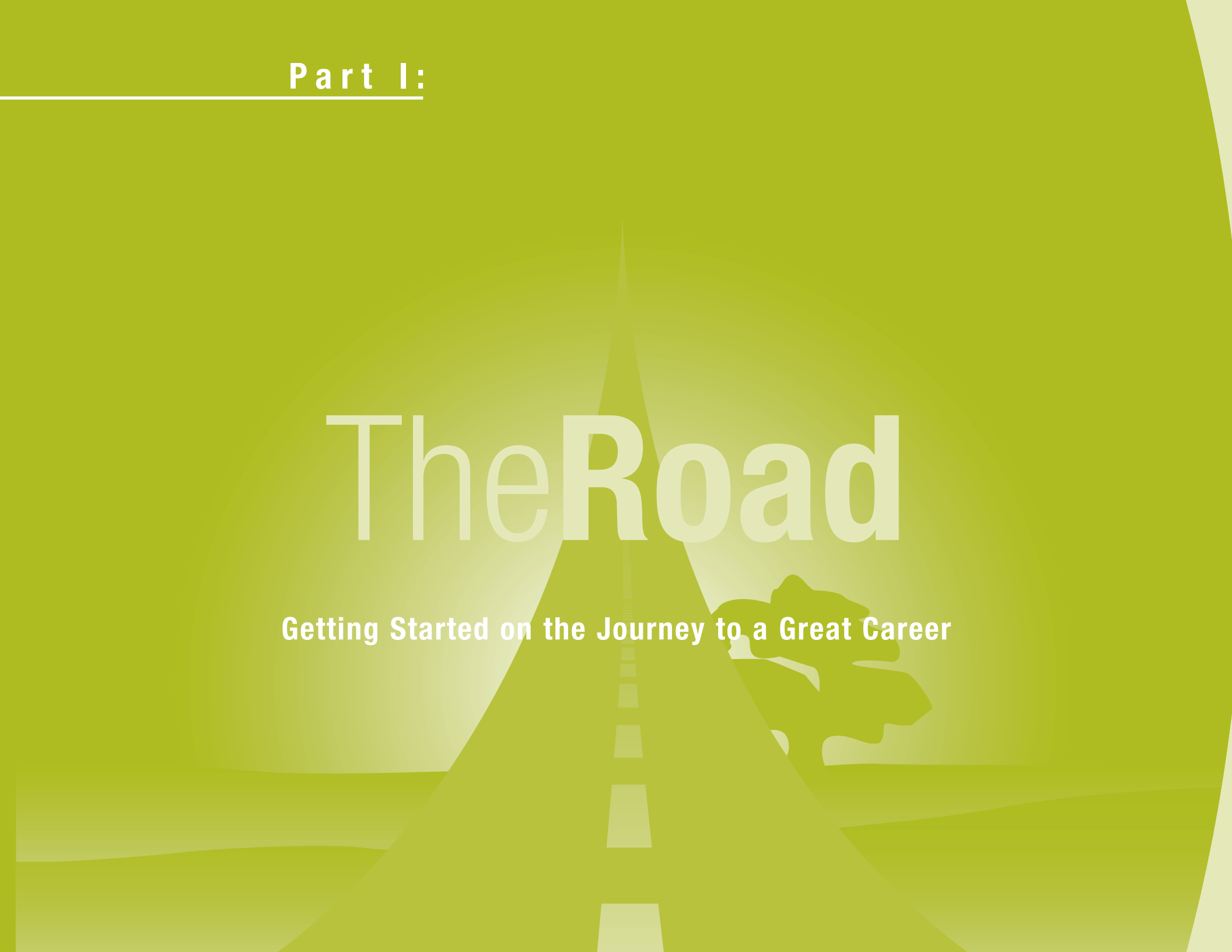
For more information, contact: Jay D. Cannon
Bureau of Career and Technical Education
Department of Education
333 Market Street
Harrisburg, PA 17126-0333
717-772-4857

Families and schools can work together as a team to help children appreciate and value their own talents and abilities. The challenge is to help children direct their energies and talents toward future goals.

Part I:

The Road

Getting Started on the Journey to a Great Career



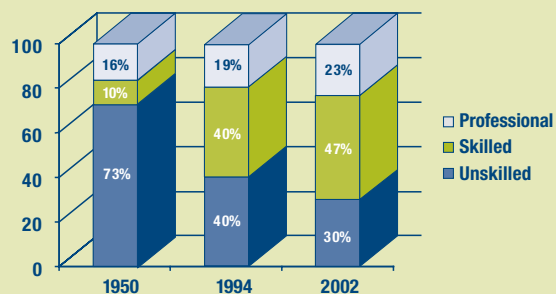
The Importance of Finding the Right Job

Then and Now

Jobs are constantly changing. What was true years ago regarding the types of jobs available and the skills you need to fill them – may no longer be the case today. The chart below shows occupational trends that have occurred over the past few decades in Pennsylvania. Knowing these trends is key to making smart decisions about the career you wish to pursue.

More training means more opportunity.

About 70 percent of jobs in Pennsylvania require advance skills, compared to 27 percent in 1950.



Source: U.S. Bureau of Census and Pennsylvania Department of Labor and Industry, Center for Workforce Information and Analysis (Pennsylvania statewide)

Then	Now
It was common for workers to spend their entire careers with one employer.	On average, workers will change jobs about seven times during their careers.
Most jobs were unskilled and didn't require much in the way of formal education.	Nearly 80 percent of all jobs require some sort of postsecondary training. These jobs tend to be better paying than jobs not requiring post-high school training.
Manufacturing jobs were very common, paid well and required only a high school diploma.	Manufacturing has changed, with high-paying, high-skill jobs now the norm. It's becoming increasingly driven by advanced science and technology, and the industry has a growing need for a workforce with the right skills to excel in this challenging environment.
College degrees almost guaranteed a high-paying job.	Today, employers are demanding specific skills and experience in addition to college or postsecondary schooling. Employers also want workers who possess "people" skills and who will fit into their organization.
A high school education was enough to obtain a good job with livable wages.	A high school diploma is just the beginning. Today, most employers often require training beyond high school – either through college or technical schools.
Many saw technical schools as catering to the less academically inclined students, and gave no real advantage over a high school diploma.	Skilled jobs requiring less than a bachelor's degree comprise almost half of today's job market. Technical training is more affordable than most four-year colleges, and is a path to high-paying, career-oriented, in-demand employment.

What's Hot

Ten Occupations Projected to Grow In Pennsylvania

Registered Nurses (pg. 37)
Customer Service Representatives (pg. 28)
Welders (pg. 20)
Nursing Aides, Orderlies & Attendants (pg. 37)
Truck Drivers, Heavy & Tractor-Trailer (pg. 42)
General & Operations Managers (pg. 28)
Receptionists & Information Clerks (pg. 37)
Cashiers (pg. 45)
Home Health Aides (pg. 37)
Combined Food Preparation & Serving Workers (pg. 45)

Source: PA 2012 Employment Projections

What's Not

Ten Occupations Projected to Decline in Pennsylvania

Secretaries
Stock Clerks & Order Fillers
Word Processors & Typists
Sewing Machine Operators
Team Assemblers
Electrical & Electronic
Equipment Assemblers
Data Entry Keyers
Bookkeeping, Accounting
& Auditing Clerks
Laborers & Material Movers
Helpers – Production Workers

Source: PA 2012 Employment Projections

So You Want to Be a Star?

Many young people dream of fame in the world of entertainment or sports. Yet, the reality is that the number of people aspiring to these glamorous jobs far outnumbers the actual openings. In the case of sports, experts estimate that only one out of every 10,000 high school student athletes will make it to the pros. And even if you do get drafted, there's no guarantee you will become rich and famous.

If you excel at sports, don't give up on your dream – but be realistic at the same time. There are still many occupations that allow you to work in professional sports and stay close to the game you love. Here are just a few examples of sports-related careers you may want to consider and prepare for:

- **Coach/Umpire** – Requires a broad knowledge of the sport to either teach or motivate players, or to observe and regulate the players' actions.
- **Sports Turf Specialist** – Tends to grass in stadiums, golf courses and tennis courts. Most jobs require a college degree in turf management, but promotion from the bottom can occur.

- **Sports Statistician** – Collects and analyzes sports data for individual games, seasons and careers. Sports announcers rely on statisticians for information.
- **Facilities Manager** – Oversees the day-to-day operations of an arena or sporting venue.
- **Broadcaster/Journalist** – Whether they are broadcasting the game live, recording a highlights reel for television or discussing trade deadlines in the paper, sports reporters and broadcasters are the eyes and ears of the people.
- **Physical Therapists** – Develop exercise programs to help recovery from injuries and to prevent future injuries. A license is required and a master's degree is preferred.

This Career Guide includes information about hundreds of careers in Pennsylvania – both sports-related and non-sports related. Take a look at our Occupational Data Bank on Pages 18 through 49 for more detailed information about many of the occupations that are in demand throughout Pennsylvania.

	High School Student Athletes	High School Senior Athletes	NCAA Student Athletes	NCAA Senior Athletes	NCAA Drafted	Odds High School to Pros
Men's Basketball	549,500	157,000	15,700	3,500	44	1 in 12,500
Women's Basketball	456,900	130,500	14,400	3,200	32	1 in 14,250
Football	983,600	281,000	56,500	12,600	250	1 in 4,000
Baseball	455,300	130,100	25,700	5,700	600	1 in 800
Men's Ice Hockey	29,900	8,500	3,700	800	33	1 in 900
Men's Soccer	321,400	31,800	18,200	4,100	76	1 in 4,000

Career Growth Through Lifelong Learning

The Only Constant is Change

In today's workforce, workers change jobs frequently. With downsizing, turnover and technological advancement, workers often have to take on new duties within their current jobs, or look for new jobs outside what they're used to doing. In other words, job security now depends on being flexible, adaptable and willing to continually learn new skills.

The CHANGES formula provides a framework for keeping your career relevant and thriving.

Did you know...

most workers stay true to their chosen careers?

Changing employers doesn't necessarily mean changing occupations. Two out of three workers stay in the same field for most of their lives.

Careers evolve. Today, workers must get used to change and risk. The average worker will change jobs between seven and nine times in his/her life. Instead of being caught by surprise, factor change into your overall career strategy, and be willing to change jobs every so often.

Hit the books; surf the Net. Find all the information you can about jobs you might be interested in, including wages, skills needed, growth within the industry – and related industries – and general economic trends. Always be on the lookout for new job possibilities.

Accomplishments matter. Keep a running list of your major projects and achievements, and refer to it often. Identify the common threads that tie your work history together, and highlight the skills, knowledge and competencies that a new employer can utilize.

New skills keep you growing. Getting promoted from your current job – or finding a new one – often requires continued learning. Keep up-to-date with software and technology, whether through classes, on-the-job training at your current job, part-time work, or volunteer work.

Get out there and network! Even in these days of instant communication via the Internet, the best way to learn about new job opportunities is through people you know. See our Networking section on Page 63 for more information.

Enthusiasm pays off. Be a model employee at all times – always eager to do your job well – because it can have long-term rewards. You never know when you'll need a good reference, or when a good job opportunity might open up at an old employer. When leaving a job, be sure not to burn your bridges.

Sell yourself. Seeking a new job is much like marketing a product. You're "packaging" your image and selling your skills, accomplishments and work ethic to prospective employers. You have to take the initiative and make the sale; you can't wait for opportunities to come to you.

Here are some helpful Web sites to visit for more information about changing careers: • www.paworkforce.state.pa.us • www.paworkstats.state.pa.us •

www.pacareerlink.state.pa.us • www.careervoyages.gov • www.careerclusters.org • www.ajb.org • www.quintcareers.com/career_change.html

• www.acinet.org • www.careerknowhow.com/guidance/career-change.htm • www.jidaw.com/careerplan.html (This site is primarily geared to technology careers.)

Get to Know Yourself

Assess Your Interests

What do you want to be when you grow up?

Changing jobs or career paths can be an adventure – a journey that leads you to new and rewarding work opportunities. It can also be confusing and frustrating if you don't have a roadmap and plan to guide you.

That's why we've provided a self-assessment test to help you determine which careers are a good fit for you. The goal is to find a rewarding job or career that utilizes your unique set of skills, talents and abilities. People who choose careers that match their interests or skills are more likely to achieve job satisfaction and success. However, self-assessment tests are just one part of the entire career puzzle. You should consider the results of your test in combination with information from career counselors and other sources.

The assessment that follows is based on the Holland Interest Inventory¹, a widely used method of matching a person's personality to specific career types. Let's get started.

STEP 1:

In each section, check the items that best describe you. Then, add up the number of checkmarks in each section, and fill in the total next to the interest letter code. Remember: there are no wrong answers; the objective is to be honest.

Are You:

- ☐ Practical
- ☐ Mechanically inclined
- ☐ Shy or modest
- ☐ Reliable
- ☐ A nature lover
- ☐ Athletic

Can You:

- ☐ Work on cars
- ☐ Solve mechanical problems
- ☐ Start a campfire
- ☐ Read a blueprint
- ☐ Fix electronic equipment
- ☐ Play a sport

Do You Like To:

- ☐ Hunt or fish
- ☐ Build or repair things
- ☐ Operate tools and machinery
- ☐ Be physically active
- ☐ Work outdoors
- ☐ Use your hands

-R-

-I-

- ☐ Scientific
- ☐ Precise
- ☐ Observant
- ☐ Curious
- ☐ Analytical
- ☐ Self-motivated

- ☐ Solve math problems
- ☐ Conduct research
- ☐ Analyze data
- ☐ Think abstractly
- ☐ Perform laboratory work
- ☐ Do complex calculations

- ☐ Use computers
- ☐ Read scientific magazines
- ☐ Use a telescope
- ☐ Experiment or observe events
- ☐ Play chess
- ☐ Work independently

Total for "R"=

Total for "I"=

1. Dr. John Holland's RIASEC model of occupations is the basis of most contemporary career inventories. It classifies an individual's personality as Realistic, Investigative, Artistic, Social, Enterprising or Conventional, and it matches those classifications to fitting vocations.

-A-

- ☐ Imaginative
- ☐ Intuitive
- ☐ Romantic
- ☐ Creative
- ☐ Independent
- ☐ Sensitive or emotional

- ☐ Play a musical instrument
- ☐ Act or perform
- ☐ Write stories or poems
- ☐ Dance
- ☐ Sketch, draw, or paint
- ☐ Work independently

- ☐ Decorate
- ☐ Take photographs
- ☐ Attend concerts or plays
- ☐ Collect artwork
- ☐ Read fiction, plays, and poetry
- ☐ Work on crafts

Total for "A"=

-S-

- ☐ Helpful
- ☐ Idealistic
- ☐ Generous
- ☐ Cooperative
- ☐ Friendly or cheerful
- ☐ Responsible

- ☐ Teach others
- ☐ Mediate disputes
- ☐ Lead a group discussion
- ☐ Work with others
- ☐ Plan or supervise an activity
- ☐ Offer others guidance

- ☐ Do volunteer work
- ☐ Organize parties
- ☐ Play team sports
- ☐ Babysit or work with children
- ☐ Be the center of attention
- ☐ Attend meetings

Total for "S"=

-E-

- ☐ Sociable
- ☐ Ambitious
- ☐ Witty
- ☐ Argumentative
- ☐ Persuasive
- ☐ Self-confident

- ☐ Convince others to see things your way
- ☐ Lead a group
- ☐ Sell things or promote ideas
- ☐ Entertain clients
- ☐ Manage people or products
- ☐ Give talks or speeches

- ☐ Belong to clubs
- ☐ Start or lead a social organization
- ☐ Meet important people
- ☐ Make decisions affecting others
- ☐ Win awards
- ☐ Run a political campaign

Total for "E"=

-C-

- ☐ Orderly
- ☐ Accurate
- ☐ Conscientious
- ☐ Efficient
- ☐ Methodical
- ☐ Careful

- ☐ Keep accurate records
- ☐ Write a business report
- ☐ Make charts and graphs
- ☐ Operate office machines
- ☐ Work well within a system
- ☐ Use a computer

- ☐ Play board games
- ☐ Collect items
- ☐ Work on home improvement projects
- ☐ Build models
- ☐ Work with numbers
- ☐ Be responsible for details

Total for "C"=

STEP 2:

Using your totals, identify the three letters that have the highest scores.

Record them in the spaces below:

**My
Interest
Code:**

STEP 3:

Below are personality/aptitude descriptions for each of the six areas. Take a minute to read the descriptions for the areas that match your interest code from Step 2.

R = Realistic

Has good skills in working with tools, mechanical or electrical drawings, machines, or plants and animals.

Generally avoids social activities like teaching, healing and informing others.

Sees self as practical, mechanical and realistic.

Possible occupations include:

- Welders (pg. 20)
- Truck Drivers (pg. 42)
- Packaging Machine Operators (pg. 23)
- Environmental Scientists (pg. 47)
- Electricians (pg. 25)

I = Investigative

Is good at understanding and solving science and math problems.

Generally avoids leading, selling or persuading people.

Sees self as precise, scientific and intellectual.

Possible occupations include:

- Pharmacists (pg. 38)
- Systems Analysts (pg. 35)
- Financial Analysts (pg. 31)
- Statisticians (pg. 41)
- Cardiovascular Technologists (pg. 41)

A = Artistic

Has creative abilities in writing, drama, crafts, music or art.

Generally avoids highly ordered or repetitive activities.

Sees self as expressive, original and independent.

Possible occupations include:

- Librarians (pg. 16, 33)
- Photographers (pg. 36)
- Graphic Designers (pg. 31)
- Architects (pg. 27)
- Technical Writers (pg. 36)
- Writers and Authors (pg. 36)

S = Social

Is good at teaching, counseling, nursing or giving information.

Generally avoids using machines, tools or animals to achieve a goal.

Sees self as helpful, friendly and trustworthy.

Possible occupations include:

- Child Care Workers (pg. 32)
- Personal Financial Advisors (pg. 30)
- Secondary School Teachers (pg. 32)
- Registered Nurses (pg. 37)
- Social Workers (pg. 38)

E = Enterprising

Is good at leading people and selling things or ideas.

Generally avoids activities that require careful observation and scientific, analytical thinking.

Sees self as energetic, ambitious and sociable.

Possible occupations include:

- Lawyers (pg. 29)
- Construction Supervisors (pg. 25)
- Purchasing Agents (pg. 21)
- Claims Adjusters (pg. 31)
- Industrial Engineers (pg. 21)
- Transportation Supervisors (pg. 43)

C = Conventional

Is good at working with written records and numbers in a systematic, orderly way.

Generally avoids ambiguous, unstructured activities.

Sees self as orderly, and good at following a set plan.

Possible occupations include:

- Bookkeeping and Accounting Clerks (pg. 29)
- Legal Secretaries (pg. 30)
- Billing Clerks (pg. 30)
- Computer Support Specialists (pg. 35)
- Cost Estimators (pg. 26)
- Management Analysts (pg. 29)



Have a Career in Mind? Try It Out First.

Check out these ideas:

Part-time Employment

Job Shadowing

Volunteer Work

Temporary Help Firms

School Clubs

Community Agencies

Internships

“Find something you enjoy doing, and then find a way to get paid doing it.”

That was the simple, yet profound, advice a mentor once offered his young protégé. Too often, however, students and career seekers do the opposite: They decide on a high-paying or high-prestige job first, then try to make themselves “like” the job or the course of study necessary to obtain it. Or, they choose an occupation based on what sounds good (or that others want them to pursue) rather than a career that’s actually something they’d enjoy doing. No wonder so many people report being dissatisfied with their jobs!

But here’s part of the problem: Many young people do not even consider a career they would find fulfilling because they have no exposure to it. The key is to learn more about various occupations and determine which ones appeal to you. But if you’re still in school, or between careers, how do you do that? Luckily, there are several ways to gain information and experience in fields you might find interesting.

Part-time Employment

A part-time job offers many advantages beyond earning some extra money. It’s also a way to gain valuable experience in a particular field — experience that will allow you to judge whether or not you’d like to make the job your career. As a bonus, performing well at your job, even if you don’t pursue that career, will get you good references for future employment.

Job Shadowing

Job shadowing allows you to directly watch someone at work. You can observe firsthand the day-to-day activities you would be performing in a particular job, as well as learn what skills you would need to obtain it. Acting as a shadow also gives you a chance to ask any questions you might have about the job and how to prepare for it. Go to www.jobshadow.org for more information.



Volunteer Work

While it doesn't provide a paycheck, serving as a volunteer is another way to gain experience in a certain field before deciding to pursue it as a career. It's also an opportunity to give back to the community while building your résumé. Many employers – particularly those in the human services field – welcome enthusiastic volunteers who offer their time in exchange for work experience.

Temporary Help Firms

As its name implies, a temporary help firm places career seekers in temporary positions within a company looking for help. The main advantage of this arrangement is that you're not making a long-term commitment to the job, since the employer knows it's temporary. It's a great opportunity to test your skills and to see if you like the type of work the company does. Plus, you can get a feel for several different jobs and fields in a fairly short period of time.

School Clubs

Many schools have clubs that focus on specific careers and cater to students interested in those fields. Student clubs often host guest speakers, arrange workplace tours and sponsor trips to conferences and competitions – all of which are excellent opportunities for résumé building and networking. For more information about well-regarded student organizations, see our section on Student Organizations on Page 62.

Community Agencies

If there is a YMCA, YWCA or similar agency in your community, check to see what type of classes they offer. This is a way to become exposed to a wide range of new interests, one of which could inspire you enough to consider a career in the field.

Internships

Internships are temporary working arrangements – usually offered to students – made with a company or organization. An internship may last a few weeks or a few months, and can be paid or unpaid. Often, they are done for college credit, depending on the circumstances. Completing an internship will give you valuable work experience, a résumé credit, a good reference and professional contacts.

Part 2:



TheMap

Charting the Best Course for Reaching Your Goals

Your Detailed Career Roadmap

Pennsylvania's Targeted Industry Clusters and High Priority Occupations

Pennsylvania's Targeted Industry Clusters



Advanced Materials and
Diversified Manufacturing



Agriculture and Food Production



Building and Construction



Business and Financial Services



Education



Information and
Communication Services



Life Sciences



Logistics and Transportation



Lumber, Wood and Paper

Studies on the future of the U.S. economy convey a common theme: *change*.

There is a great deal of uncertainty about the workforce of tomorrow. That's important for you to know, because you'll be entering the job market as changes are in full force. But that doesn't mean you need to be concerned. After all, change can bring about new and exciting opportunities. Pennsylvania has an innovative plan for this dynamic transformation occurring in the job market. Through this plan, Pennsylvania's workers can gain the skills necessary to find and maintain gainful employment. At the same time, it will bolster Pennsylvania's competitive advantages in today's global marketplace.

Pennsylvania started by identifying nine targeted industry clusters, listed in the box to the left, that drive the state's economy. More than two-thirds of jobs in the state are found in these clusters, including those that pay well and are competitive.

Industries and occupations are related, but they're different. An **industry** is *where you work*. Pennsylvania has identified clusters of industries with strong potential. An **occupation** is *what you do* at your place of work, or in your industry. For example, you might work in the Health Care industry as a Registered Nurse.

After identifying industries with strong potential for growth, the commonwealth then began to define those occupations with higher wages and career advancement opportunities within the targeted industry clusters. Those occupations are called High Priority Occupations. A high level of demand exists for these jobs, and employers could be faced with shortages in filling them. By emphasizing these High Priority Occupations, the commonwealth is encouraging its young residents (you!) to obtain training in fields that are likely to be "hot" in the future economy.

The next section of this guide spotlights the Education Cluster, and some of the initiatives in place to promote these rewarding careers. We encourage you to read it carefully and give consideration to the many advantages of a career in the Education profession.

Focus on Education

“In our 21st Century economy, education is the key to progress, and without it our workers are at a distinct disadvantage.”

— Governor Edward G. Rendell, 2005-06 Executive Budget Address

You simply cannot overestimate the importance of education in our lives. When you think about it, education enables us to live life — because it gives us the tools to communicate, work and function in the real world.

It's no wonder education is such an important industry. In Pennsylvania alone, the Education Cluster accounts for more than half a million jobs. Nearly one in 10 Pennsylvanians is employed in the education field in some capacity.

This is truly an exciting time for education in Pennsylvania. Recently, Governor Rendell proposed new education funding in recognition of the field's growing importance in Pennsylvania and across the nation.

- Head Start
- Pre-kindergarten
- Smaller, all-day kindergarten classes
- Elementary school science education
- Special education
- Limited English Proficiency and English as a Secondary Language education
- Math, science, English and foreign languages education
- Grants to schools to enhance their college/career counseling departments
- Improvements to the Career and Technical Education system
- Technological upgrades to classrooms, including multi-media hardware and laptops for students
- Grants for college students majoring in math or science fields
- Increased funding for the Pennsylvania community college system
- Grants to assist teachers in obtaining National Board certification
- Increased funding for public libraries

Growth trends are already evident within the Education Cluster. Here's a look at some of the many jobs available in education.

*Though not formally considered part of the Education Cluster, Technical Support Workers may be in high demand when classrooms are upgraded with multimedia equipment and laptops.

Teaching Younger Students

- Head Start Teacher
- Other Pre-School Teacher
- Kindergarten Teacher
- Elementary-Level Science Teacher

Teaching Special Needs Students

- Special Education Teacher
- Limited English Proficiency Teacher
- English as a Secondary Language (ESL) Teacher

Teaching Older Students

- Vocational Instruction Teacher
- Math and Science Teacher
- Language Teacher
- Post Secondary Education Instructor

Non-Teaching Occupations

- Administrators
- Teaching Assistants
- Student Counselors
- Librarians
- Technical Support Workers*

The Future Looks Bright

Occupational Outlook for Selected Jobs in Education

Child Care Workers

- **Duties:** Care for children in institutional settings, such as day care centers, group homes, nursery schools or private businesses. Primary duties involve basic child care and teaching. Child care workers spend most of their time working directly with children, but also interact with administrators and parents or guardians.
- **Working Conditions:** Typically work in institutional settings, such as schools or day care centers.
- **Skills Required:** Active listening, active learning, critical thinking, negotiation with children and social perceptiveness.
- **Education:** Typically requires a high school diploma and short-term on-the-job training. In general, personal demeanor and the ability to patiently deal with children are more important than any particular form of higher education.

Teacher Assistants (Aides)

- **Duties:** Provide instructional and clerical support for teachers. Secondary duties include supervising students during lunches or on field trips; providing physical assistance to special needs students; and personally aiding students for whom English is a secondary language.
- **Working Conditions:** Primarily in classroom settings. Teacher Assistants may also perform non-classroom duties, such as supervising students in the lunchroom or chaperoning students on field trips.
- **Skills Required:** Active listening, speaking, and instructing; a personal orientation toward providing service and assistance.
- **Education:** Minimum of a high school diploma and experience working with children. Increasingly, schools are favoring applicants with some college experience.

Occupational Title	Employment Data			Wage Data		
	2002 Employment	Projected 2012	Openings per Year	Entry	PA Average	U.S. Average
Child Care Workers	34,570	42,390	1,722	\$12,580	\$17,740	\$18,060
Teacher Assistants	43,060	46,810	1,205	\$14,120	\$19,630	\$20,750
Special Education Teachers	17,420	19,480	621	\$34,280*	\$50,630*	\$48,770*
Education Administrators	18,090	19,760	617	\$43,650*	\$69,310*	\$71,320*
Librarians	6,730	6,800	167	\$27,900	\$47,140	\$48,700
Postsecondary Teachers	72,780	88,120	3,179	\$34,000*	\$62,720*	\$62,000*

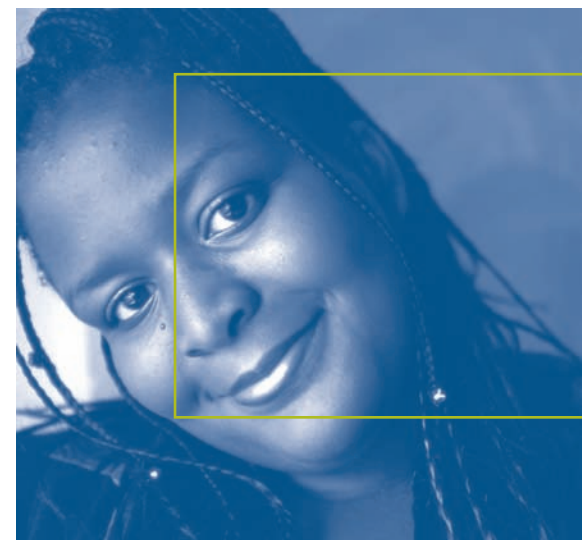


Special Education Teachers

- **Duties:** Design and teach curricula for students with special needs at all levels of education. Also aid students in their emotional and social development, and assist them in learning basic life skills.
- **Working Conditions:** Primarily classroom settings which are somewhat non-traditional. Special education environment requires specialized equipment (such as synthesized speech software) and more one-on-one student instruction.
- **Skills Required:** Active listening, strong communication skills, ability to develop instruction and learning strategies. Above all, Special Education teachers must be patient and able to adapt to the needs of their students.
- **Education:** Minimum of a bachelor's degree, along with a teaching certificate.

Education Administrators

- **Duties:** Direct, plan and evaluate the activities of teachers, counselors and support staff at schools and other educational institutions. Also take on the role of chief disciplinarian in their institutions.
- **Working Conditions:** Diverse. Since the role of education administrators is to improve the level of education within their institutions, they spend office time reading reports and evaluations; visit classrooms to do first-hand evaluations; attend conferences with other administrators; frequently interact with students, parents and community leaders.
- **Skills Required:** Aptitude for management, human resources and coordination. In the field of education, administrators must also have an understanding of education methods.
- **Education:** While not required, an advanced degree is becoming the norm – with many administrators holding master's degrees.



When wages for the specified group of occupations were unavailable, an estimated wage was produced and denoted by an asterisk ()*



Librarians

- **Duties:** Generally fall into three categories: Those specializing in user services assist patrons in finding books and information. Librarians specializing in technical services oversee cataloguing and acquisition of new materials. Administrative services librarians manage libraries by overseeing personnel, budgetary and public relations duties.
- **Working Conditions:** Vary depending upon specialty. User services librarians spend considerable time on the library floor interacting with library patrons. Technical librarians spend more time working with the library catalogue and book stacks. Administrative librarians deal with library personnel and outside concerns, such as fundraising.
- **Skills Required:** Active learning, critical thinking and reading comprehension. User services specialists must be skilled in dealing with patrons; technical services librarians need database skills; and administrative service librarians should have management acumen.
- **Education:** Generally requires a master's degree in library sciences.

Postsecondary Teachers

- **Duties:** Prepare and deliver lectures to graduate and undergraduate students, develop and grade exams and assignments (or oversee grading by teaching assistants), and advise students; remain informed of developments in their specific discipline, while developing scholarships of their own; sit on various committees, such as those overseeing the curriculum, discipline or hiring.
- **Working Conditions:** Classroom and office settings, and, depending on the discipline, a laboratory. Committee work can involve interviews and interacting with colleagues. To keep abreast of current research, postsecondary teachers often attend regional or national academic conferences within their discipline.
- **Skills Required:** Must be well versed in their disciplines, skilled in verbal and written communication, reading comprehension, and (at larger schools especially) research methods.
- **Education:** Minimum of a master's degree in their field or one closely related. However, given the intense competition for jobs within this occupation, most schools above the community college level require a doctoral degree by the time of hire.





Lifelong Learning

A Pennsylvania woman goes to college at age 42

As a young girl growing up in Stoney Run, Lorna Laska always had a passion for learning. In high school, Lorna took college prep courses hoping to continue her education after earning her diploma. Unfortunately, her father didn't agree with Lorna's plans. "Can you believe it?" Lorna exclaimed. "My father was an educator, but did not believe girls should go to college!"

Fast forward to 1991. While Lorna was helping her second son fill out applications for college, he turned to her and said: "You know, Mom, you could go to college, too." Lorna took his advice. She was accepted at Edinboro University of Pennsylvania in the fall of 1991. At age 42, Lorna finally realized her dream of going to college.

Lorna set high goals for herself: a dual major in elementary and special education. She said she chose the education field because "I always enjoyed school and the whole learning process, and I could not understand why my children complained that school was boring. More importantly, I have two children with learning disabilities. I wanted to be equipped to handle special-needs students, regardless of the classroom setting."

With that, Lorna entered Edinboro as a full-time student. Juggling family and school became more difficult as Lorna progressed through her studies. "Junior year was the toughest. I was taking 21 credits because I wanted to graduate in four years. I thought to myself, 'Can I do this?' But I did manage to get through it." Lorna graduated in 1995 with honors, earning degrees in both elementary and special education.

After graduating, Lorna worked as a substitute teacher, taught adults full time for the agency that oversees public training funds for Erie

County and worked in youth programs before landing a job at Perseus House, a nonprofit organization for at-risk youths. At Perseus House, Lorna taught an alternative high school program at the Erie County Prison. When Perseus House established its Charter School of Excellence, targeting students most likely to drop out of school, she was hired to teach social studies.

"Teaching is 'out-of-the-box' at the charter school," Lorna said. "Many styles are used in order to adapt to the individual needs of students. My [special education] degree has enabled me to work with different learning styles of students." For Lorna, teaching at the charter school was a perfect fit. "I have always championed to help the underdog," she said, "because... they can be successful."

Lorna's story is compelling testimony to the rewards of pursuing a career in the field of education – at any age.



Did you know...

you're never too old to learn?

Half of all people age 35 to 54 participate in adult education – most of them in career- or job-related courses.



Occupational Data Bank

Your Quick Reference Guide

As you consider your future occupation, many questions will arise. What duties are involved? What does the job pay? Will there be a lot of competition for openings? What kind of training will I need? Where can I get more information?

Our detailed Occupational Data Bank (ODB) answers many of your questions. On the following pages, information is provided for more than 250 occupations, which employ approximately 80 percent of Pennsylvania's workforce. To access similar data for other occupations or a specific area, please contact the Center for Workforce Information & Analysis (CWIA) at 1-877-4WF-DATA or by e-mail at workforceinfo@state.pa.us.

For ease of use, the occupations have been grouped into 10 clusters – the nine Targeted Industry Clusters (as shown in the first chapter of this section) and an additional cluster for miscellaneous occupations. The ODB provides a closer look at the occupations within each of these clusters. If you are unable to locate a specific occupation, please consult the alphabetical directory at the end of the section. For more comprehensive information, check out the PA Occupational Outlook Handbook at www.paworkstats.pa.us and click on Products.





Occupational Data Bank (ODB) Quick Reference Guide:

High Priority Occupation (HPO) – Those occupations designated as HPOs are highlighted in bold print.

Occupational Description – Provides a brief description of the duties performed in the occupation.

Interest Code – Links the occupation to the categories established in the interest assessment test on pages 6-8.

Employment Outlook – Based on occupational projections produced by the Pennsylvania Department of Labor & Industry, Center for Workforce Information & Analysis. Projected employment is the number of jobs expected in the year 2012. Openings per year are the number of annual job openings per year, due to growth and replacement needs caused by exiting workers. *[Tables are sorted by number of openings, starting with the most and continuing to the fewest.]*

Wage Data – From the Occupational Employment Statistics survey. Wages are 2004 annual figures representing entry-level and average wage in Pennsylvania and nationwide. *[When wages for the specified group of occupations were unavailable, an estimated wage was produced and denoted by an asterisk (*).]*

Training Level – Denotes the most common level of training obtained by workers currently employed in the occupation.

- Short-term, Moderate-term, and Long-term training (ST OJT, MT OJT and LT OJT) – basic tasks and skills are learned through a period of on-the-job training (OJT).
- Work experience in a related occupation (WK EXP) – training is gained through hands-on work in a similar occupation.
- Postsecondary vocational training (VOC ED) – training is gained through a vocational training program.
- Associate's Degree (AD) – degree completed after two years of full-time schooling beyond high school.

- Bachelor's Degree (BD) – degree completed after four years of full-time schooling beyond high school.
- Bachelor's Degree plus experience (BD+) – a four-year bachelor's degree plus experience gained through hands-on experience.
- Master's (MD), Doctoral (PhD), or First Professional Degree (PROF) – formal training beyond a four-year bachelor's degree.

Career Path Icon – Refers to the student checklist on pages 56-58. Check to see what you should be doing now to prepare for a job that interests you.

- W** Going right into the workforce
- T** Other postsecondary training
- C** Four-year college bound

Related Industry Clusters – Most jobs fall into more than one industry cluster, sometimes in significant quantity. Top-employing clusters for the occupation are identified.

For Further Information – Provides a list of places to search online for further information on an occupation – either in the Pennsylvania Occupational Outlook Handbook (abbreviated PA OOH in the charts) or a union, professional or trade association related to the occupation. The PA OOH is available at www.paworkstats.pa.us, and click on Products.



Advanced Materials and Diversified Manufacturing (AMDM)

Workers in the AMDM cluster set-up and/or operate machinery that makes various products used by consumers and businesses. The cluster includes many industries, such as plastics, chemical and metal manufacturing; commercial printing; textile, iron and steel mills; and machine shops.

Jobs in these industries include high-paying positions such as

welders, machinists, electrical engineers, tool and die makers and many more as listed in the table below. In many of these jobs, workers must be able to perform physical activities for long periods of time. Traditionally, AMDM jobs needed on-the-job training but technological advancements have created a new manufacturing world, where higher skills and postsecondary education are required.

In Pennsylvania, the AMDM cluster provides nearly half a million jobs with an average annual wage of \$43,061, about 20 percent above the statewide average. With experience, the wages are even better. An experienced welder makes \$37,180; an experienced electrical engineer makes \$84,690. There are also well-paying management positions in AMDM – an experienced production manager can make \$99,380.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Production Supervisors - oversee production and operating workers.	ERC	35,100	750	\$31,850	\$49,010	\$48,290	WK EXP	W	AMDM	PA 00H (Blue Collar Supervisors)
<u>Team Assemblers</u> - work as part of a team to assemble a product or product component.	RC	38,560	703	\$17,520	\$25,620	\$25,780	MT OJT	W	AMDM	PA 00H (Precision Assemblers)
Welders - make or repair existing products by using heat and pressure to join metal pieces together.	R	17,650	539	\$23,730	\$32,690	\$32,220	PS VOC	T	AMDM,BC	PA 00H (Welders, Cutters & Welding Machine Operators); American Welding Society
Inspectors & Testers - inspect, test, sort, sample or weigh assembled parts and products for defects, wear and specification deviations.	RC	22,990	425	\$20,680	\$31,890	\$31,560	MT OJT	W	AMDM	PA 00H (Inspectors, Testers & Graders); American Society for Quality
<u>Production Helpers</u> - assist production workers with duties of a lesser skill.	R	20,590	405	\$15,750	\$23,420	\$21,590	ST OJT	W	AMDM	PA 00H (Handlers, Equipment Cleaners, Helpers & Laborers)
<u>Machinists</u> - make or repair metal parts for machines.	R	17,720	381	\$23,390	\$33,980	\$35,000	LT OJT	W	AMDM	PA 00H (Machinists & Numerical Control Machine Tool Programmers); Precision Machined Products Association
Production Clerks - coordinate the flow of work and materials among departments according to schedule.	CE	14,220	373	\$20,810	\$36,020	\$38,290	ST OJT	W	AMDM	PA 00H (Production, Planning & Expediting Clerks)

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Electronic Equipment Assemblers</u> - assemble or modify electrical or electronic equipment.	R	11,750	283	\$18,380	\$27,420	\$26,780	ST OJT	W	AMDMD	PA OOH (Precision Assemblers)
Purchasing Agents - purchase machinery or equipment necessary for the operation of an establishment.	EC	10,250	277	\$32,020	\$50,590	\$51,860	BD	C	AMDMD	PA OOH (Purchasing Managers, Buyers & Purchasing Agents); American Purchasing Society
Printing Machine Operators - set up and operate various printing machines to produce print on paper or other materials.	RC	11,750	250	\$20,950	\$32,510	\$32,100	MT OJT	W	AMDMD	PA OOH (Printing Press Operators); Graphic Communications International Union
Mechanical Engineers - plan or design tools, engines or other equipment.	RI	8,470	231	\$45,420	\$65,630	\$69,480	BD	C	AMDMD	PA OOH (Mechanical Engineers); American Society of Mechanical Engineers
Molding Machine Operators - operate molding machines to mold metal or thermoplastic parts.	R	8,190	203	\$18,750	\$27,090	\$26,490	MT OJT	W	AMDMD	PA OOH (Metalworking & Plastics-Working Machine Operators); Precision Metalforming Association Educational Foundation
<u>Industrial Production Managers</u> - plan and coordinate the activities and resources necessary for the manufacturing process.	EC	10,220	197	\$46,210	\$81,660	\$80,640	BD	C	AMDMD	PA OOH (Industrial Production Managers); National Management Association
<u>Engineering Managers</u> - plan, direct or coordinate activities in fields such as architecture or engineering.	EIR	8,080	184	\$65,800	\$98,920	\$104,210	BD+	C	AMDMD, ICS	PA OOH (Engineering, Natural Science & Computer Managers)
<u>Electrical Engineering Technicians</u> - design, build, test and repair electrical components.	RIC	8,180	184	\$29,050	\$44,580	\$47,920	AD	T	AMDMD, Other	PA OOH (Engineering Technicians); Junior Engineering Technical Society
Industrial Engineers - design, develop and test integrated systems for managing industrial production.	EIR	6,570	178	\$44,860	\$68,090	\$67,820	BD	C	AMDMD	PA OOH (Industrial Engineers); Institute of Industrial Engineers
<u>Cutting Machine Operators</u> - operate machines to saw or cut metal or plastic material.	R	9,990	168	\$19,670	\$28,050	\$27,240	MT OJT	W	AMDMD	PA OOH (Metalworking & Plastics-Working Machine Operators); National Tooling and Machining Association
<u>Industrial Machinery Mechanics</u> - install, repair or maintain production machinery and distribution systems.	R	9,280	167	\$29,300	\$39,840	\$40,560	LT OJT	W	AMDMD, Other	PA OOH (Industrial Machinery Repairers); National Tooling and Machining Association
Chemical Equipment Operators - operate equipment to control chemical changes or reactions in the processing of industrial or consumer products.	R	4,830	157	\$24,080	\$34,650	\$39,560	MT OJT	W	AMDMD, LS	N/A

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
CNC Machine Operators - operate automatic machine tools to produce metal or plastic parts.	R	8,750	140	\$21,650	\$31,020	\$31,830	LT OJT	W	AMDM	PA OOH (Machinists & Numerical Control Machine Tool Programmers); Precision Machine Products Association
<u>Machine Feeders & Offbearers</u> - feed or remove materials from equipment that is automatic or tended by other workers.	R	7,970	138	\$17,460	\$25,160	\$23,700	ST OJT	W	AMDM	PA OOH (Handlers, Equipment Cleaners, Helpers & Laborers)
<u>Mixing Machine Operators</u> - operate machines to mix or blend materials.	R	5,360	135	\$22,620	\$31,370	\$29,760	MT OJT	W	AMDM, AFP	N/A
<u>Mechanical Drafters</u> - prepare detailed working diagrams of machinery and mechanical devices.	RCI	4,810	118	\$28,790	\$44,290	\$45,720	PS VOC	T	AMDM, ICS	PA OOH (Drafters); American Design Drafting Association
<u>Coating Machine Operators</u> - operate machines to coat or paint any of a wide variety of products.	R	4,450	118	\$21,890	\$31,400	\$27,880	MT OJT	W	AMDM	PA OOH (Painting & Coating Machine Operators)
<u>Electrical Engineers</u> - oversee the manufacturing and operation of electrical and electronic equipment.	IRC	6,590	117	\$48,080	\$72,490	\$75,540	BD	C	AMDM, ICS	PA OOH (Electrical & Electronics Engineers); Institute of Electrical and Electronics Engineers
<u>Tool & Die Makers</u> - use machines to make molds, fixtures and dies that are used by other machinists to manufacture metal products.	R	5,610	112	\$28,690	\$39,080	\$44,640	LT OJT	W	AMDM	PA OOH (Tool & Die Makers); Tooling and Manufacturing Association
<u>Sales Engineers</u> - sell business goods or services that require an engineering background.	ECS	3,400	111	\$42,650	\$66,190	\$77,290	BD	C	AMDM	PA OOH (Manufacturers' & Wholesale Sales Representatives); Manufacturers' Agents National Association
<u>Chemical Plant Operators</u> - control an entire chemical process or system of machines.	RCI	2,610	106	\$34,950	\$41,590	\$45,830	LT OJT	W	AMDM, LS	N/A
<u>Extruding Machine Operators</u> - extrude thermoplastic or metal materials into structural shapes using machinery.	R	4,080	104	\$22,850	\$31,890	\$28,370	MT OJT	W	AMDM	PA OOH (Metalworking & Plastics-Working Machine Operators); Society of Plastics Industry
Job Printers - set type according to copy; operate print press; proofread and correct imperfections.	RC	3,150	77	\$19,210	\$31,250	\$33,600	LT OJT	W	AMDM	PA OOH (Printing Press Operators); Graphic Communications International Union
Prepress Technicians - set up and prepare material for printing presses.	R	3,840	71	\$21,450	\$31,950	\$33,990	LT OJT	W	AMDM	PA OOH (Prepress Workers); Graphic Communications International Union



Agriculture and Food Production (AFP)

The AFP cluster starts with the growing of food crops and ends with the distribution of these products. Workers raise animals and food, perform landscaping functions and provide utility services. Industries in this cluster include supermarkets; commercial bakeries; veterinary services; beer, wine and liquor stores; and farming.

Jobs in these industries include cashiers and stock clerks, food preparation workers, machine operators, farmers and farmworkers.

Some AFP jobs are seasonal and result in long hours during the summer months. Workers should enjoy working outside through all types of weather.

In Pennsylvania, the AFP cluster makes up approximately 6 percent of the total jobs in the state with an average annual wage of \$26,308. However, it's possible for experienced workers to attain substantially higher wages. An experienced agricultural inspector and

an experienced agricultural equipment operator earn \$46,540 and \$33,930, respectively. Workers interested in supervisory positions should know that an experienced supervisor of farm workers earns \$52,180.

This cluster provides many job opportunities that require only on-the-job training or minimal experience. Entry-level positions are plentiful, especially for landscapers and groundskeeping workers.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Stock Clerks</u> - receive and store materials, equipment and other items from stockrooms and warehouses.	CRE	66,300	2,150	\$14,060	\$21,300	\$21,970	ST OJT	W	AFP, Other	PA OOH (Stock Clerks); National Retail Federation
<u>Farmworkers</u> - plant, cultivate and harvest crops or attend to live farm, ranch or aquacultural animals.	RCI	38,770	1,221	\$14,010*	\$20,020*	\$17,270*	MT OJT	W	AFP, Other	PA OOH (Farmers & Farm Managers); National Association of Animal Breeders
<u>Packers & Packagers</u> - pack or package a wide array of products and materials by hand.	R	45,110	917	\$14,420	\$20,760	\$18,760	ST OJT	W	AFP, AMDM	PA OOH (Handlers, Equipment Cleaners, Helpers & Laborers)
<u>Farmers</u> - plan, plant, harvest and sell crops. May also raise livestock.	R	32,900	870	\$19,160	\$32,290	\$42,050	LT OJT	W	AFP	PA OOH (Farmers & Farm Managers); American Society of Farm Managers and Rural Appraisers
Packaging Machine Operators - operate machines used to prepare industrial or consumer products for storage and/or shipment.	R	16,660	354	\$17,880	\$26,270	\$24,580	ST OJT	W	AFP	N/A
<u>Bakers</u> - mix and bake ingredients according to recipes.	R	11,790	284	\$14,750	\$22,270	\$23,010	LT OJT	W	AFP, Other	PA OOH (Chefs, Cooks & Other Kitchen Workers); American Bakers Association
<u>Agricultural Equipment Operators</u> - drive and control farm equipment to till soil and to plant, cultivate and harvest crops.	R	3,870	142	\$25,760	\$31,200	\$20,190	MT OJT	W	BFS, AFP	PA OOH (Farmers & Farm Managers)

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Food Batchmakers - operate equipment that mixes ingredients used in the manufacturing of food products.	R	5,770	112	\$15,230	\$26,020	\$23,890	ST OJT	W	AFP	N/A
Veterinary Technicians - perform medical tests for use in the treatment and diagnosis of animal diseases.	RI	2,910	98	\$19,050	\$25,990	\$26,330	AD	T	BFS, AFP	PA OOH (Veterinarians); American Veterinary Medical Association
Butchers - cut, trim or prepare meat for sale in retail establishments.	R	5,520	90	\$17,680	\$26,770	\$27,570	LT OJT	W	AFP	PA OOH (Butchers & Meat, Poultry & Fish Cutters); United Food and Commercial Workers International Union
Farming & Forestry Supervisors - oversee the work of agricultural, forestry and aquacultural workers.	RE	2,620	85	\$29,840	\$44,740	\$38,930	MT OJT	W	Other, AFP	PA OOH (Farmers & Farm Managers)
Meat, Poultry & Fish Cutters - use hand tools to cut and trim meat, poultry and fish.	R	4,770	83	\$17,330	\$22,330	\$20,320	ST OJT	W	AFP	PA OOH (Butchers & Meat, Poultry & Fish Cutters); United Food and Commercial Workers International Union
Veterinarians - prevent, diagnose, treat and control disease and injury among animals.	IR	2,150	77	\$48,330	\$80,510	\$76,320	PROF	C	BFS, AFP	PA OOH (Veterinarians); American Veterinary Medical Association
Veterinary Assistants - assist veterinarians with the examination, treatment and medication of animals.	RIS	2,070	57	\$14,610	\$20,640	\$20,130	ST OJT	W	BFS, AFP	PA OOH (Veterinary Assistants & Nonfarm Animal Caretakers); American Association for Laboratory Animal Science
Agricultural Graders & Sorters - grade, sort or classify unprocessed food and other agricultural products by size, weight, color or condition.	RC	1,710	50	\$14,310	\$17,780	\$18,080	WK EXP	W	AFP	PA OOH (Inspectors, Testers & Graders)
Farm Product Buyers - purchase farm products either for further processing or resale.	ECR	580	23	\$27,280	\$47,980	\$51,650	WK EXP	W	Other, AFP	PA OOH (Purchasing Managers, Buyers & Purchasing Agents); American Purchasing Society
Agricultural Inspectors - inspect agricultural commodities, processing equipment and facilities to ensure compliance with regulations and laws.	RIC	220	4	\$27,600	\$40,220	\$33,660	WK EXP	W	AFP, Other	PA OOH (Inspectors & Compliance Officers)



Building and Construction (BC)

The BC cluster employs workers who build homes, office buildings, schools and the roads and bridges that get you from here to there. Industries included in this cluster are electrical contracting; highway, street and bridge construction; commercial construction; and plumbing and HVAC contracting.

Jobs in these industries include carpenters, electricians, plumbers, HVAC mechanics, roofers and carpet installers. The majority of the

work is performed outside and the changing seasons result in longer work hours in the spring, summer and fall. Many individuals find alternative work through the winter, but some companies do offer year-round work.

In Pennsylvania, the BC cluster makes up approximately 6 percent of the total jobs in the state with an annual average wage of \$40,927, nearly 15 percent higher than the statewide average. BC includes a

large number of vocational occupations that do not require advanced education. Many workers start out as helpers or laborers and advance to construction craft occupations.

Working your way up the construction career ladder pays off – a skilled carpenter makes \$43,300 and a skilled electrician, \$61,960. Workers leaning toward management positions should know that experienced construction supervisors earn \$65,290.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Carpenters</u> - use hand or power tools to build or repair wooden structures such as houses, porches and roofs.	R	50,410	1,138	\$22,840	\$36,480	\$38,250	LT OJT	W	BC	PA OOH (Carpenters); Associated Builders and Contractors
Construction Helpers - assist skilled construction workers with basic tasks.	R	17,320	772	\$16,800*	\$24,720*	\$24,220*	ST OJT	W	BC	PA OOH (Handlers, Equipment Cleaners, Helpers & Laborers)
<u>Electricians</u> - install and maintain electrical wiring, equipment or fixtures.	R	28,370	758	\$29,890	\$51,270	\$45,200	LT OJT	W	BC	PA OOH (Electricians); International Brotherhood of Electrical Workers
<u>Construction Laborers</u> - perform tasks involving physical labor at building, highway and heavy construction sites.	R	37,820	700	\$19,820	\$31,670	\$28,920	MT OJT	W	BC	PA OOH (Handlers, Equipment Cleaners, Helpers & Laborers); National Center for Construction Education and Research
<u>Operating Engineers</u> - use construction equipment to excavate earth, erect structures or pour concrete.	R	19,200	547	\$25,970	\$38,150	\$38,870	MT OJT	W	BC, Other	PA OOH (Construction Equipment Operators); International Union of Operating Engineers
<u>Plumbers & Pipefitters</u> - build, install or repair piping systems used to carry water, steam and other gases.	R	19,880	540	\$29,860	\$45,400	\$44,510	LT OJT	W	BC	PA OOH (Plumbers, Pipefitters & Steamfitters); Plumbing-Heating-Cooling Contractors Association
<u>Construction Supervisors</u> - coordinate the activities of construction and/or extraction workers.	ER	21,930	502	\$34,620	\$55,060	\$54,720	WK EXP	W	BC	PA OOH (Blue Collar Supervisors); American Institute of Constructors
<u>HVAC Mechanics</u> - repair and install heating, air conditioning and refrigeration systems in buildings.	R	14,850	360	\$27,100	\$39,570	\$38,410	LT OJT	W	BC, Other	PA OOH (Heating, Air-Conditioning & Refrigeration Mechanics and Installers)

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Construction Managers - direct construction and maintenance activities of structures and systems.	ERC	12,980	355	\$45,580	\$71,910	\$80,070	BD	C	BC	PA 00H (Construction Managers); Associated Builders and Contractors
Painters - prepare surfaces for the application of paint, varnish, enamel or lacquer and apply those products.	R	13,680	298	\$21,920	\$35,580	\$33,380	MT OJT	W	BC	PA 00H (Painters & Paperhangers); International Union of Painters and Allied Trades
Cost Estimators - prepare estimates to aid in determining the price of a product or service.	CE	8,310	236	\$33,370	\$53,280	\$54,870	BD	C	BC	PA 00H (Cost Estimators); Professional Construction Estimators Association of America
Roofers - install or repair the roofs of buildings by applying tile, slate and composition roofing.	R	6,790	216	\$19,670	\$32,260	\$34,040	MT OJT	W	BC	PA 00H (Roofers); National Roofing Contractors Association
Sheet Metal Workers - shape sheet metal for use in heating, cooling or roofing projects.	R	7,600	214	\$27,640	\$42,920	\$39,070	MT OJT	W	BC	PA 00H (Sheet Metal Workers & Duct Installers); Sheet Metal Workers International Association
Cement Masons - smooth and finish surfaces of poured concrete using a variety of hand and power tools.	R	4,950	164	\$25,660	\$38,780	\$34,070	LT OJT	W	BC	PA 00H (Cement Masons, Concrete Finishers & Terrazzo Workers); Operative Plasterers' and Cement Masons' International Association of the United States and Canada
Brick & Blockmasons - lay non-stone materials to construct or repair walls, sewers and other structures.	R	7,300	163	\$27,130	\$41,810	\$42,770	LT OJT	W	BC	PA 00H (Bricklayers & Stonemasons); International Union of Bricklayers and Allied Craftsmen
Civil Engineers - design and oversee the construction and maintenance of structures such as roads, bridges and power plants.	RIC	7,720	144	\$45,330	\$63,490	\$68,280	BD	C	ICS, Other	PA 00H (Civil Engineers); American Society of Civil Engineers
Architectural Drafters - prepare detailed working plans for engineering or manufacturing projects.	RCA	5,020	138	\$28,250	\$40,660	\$41,650	PS VOC	T	ICS, BC	PA 00H (Drafters); American Design Drafting Association
Carpet Installers - lay and install carpet, padding and trim flooring materials.	R	4,300	137	\$18,960	\$29,720	\$36,690	MT OJT	W	Other, BC	PA 00H (Carpet, Floor & Tile Installers & Finishers); Floor Covering Installation Contractors Association
Construction Inspectors - inspect new and existing structures to ensure compliance with building, zoning and other regulations.	CR	4,490	129	\$27,470	\$40,550	\$45,870	WK EXP	W	Other, ICS	PA 00H (Construction & Building Inspectors); International Conference of Building Officials

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Architects</u> - plan and design structures such as private homes, office buildings or factories.	ARI	4,240	99	\$43,640	\$67,800	\$67,300	BD	C	ICS	PA OOH (Architects); American Institute of Architects
<u>Excavating Machine Operators</u> - operate machinery equipped with scoops, shovels or buckets to excavate and load loose materials.	R	3,030	83	\$20,490	\$31,130	\$34,520	MT OJT	W	BC	PA OOH (Construction Equipment Operators); International Union of Industrial Engineers
<u>Structural Metal Workers</u> - raise, place and unite iron or steel girders, columns or other structural members to form completed structures or framework.	R	3,410	83	\$28,640	\$46,270	\$44,820	LT OJT	W	BC	PA OOH (Structural & Reinforcing Metal Workers); International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers
Stonemasons - build stone structures. Lay walks, curbstones or special types of masonry.	R	470	10	\$25,170	\$36,760	\$37,280	LT OJT	W	BC	PA OOH (Bricklayers & Stonemasons); International Union of Bricklayers and Allied Craftmen



Business and Financial Services (BFS)

The BFS cluster includes a wide range of support services available to today's businesses. BFS is comprised of a very diverse group of workers, ranging from entry-level positions to management. Individuals could be running a company, managing finances, protecting your legal rights, trading stocks or selling insurance. Industries in this cluster include banking and credit institutions, insurance carriers and brokers, personal and

professional business services, advertising and marketing agencies and employment agencies.












BFS jobs include secretaries, janitors, bank tellers, accountants, lawyers and insurance agents. Workers in these occupations often have regular daylight shifts and work in an office environment. In addition, many workers will need some basic computer skills to perform their daily functions.

In Pennsylvania, the BFS cluster makes up approximately 14 percent of total jobs in the state with an annual average wage of \$42,845. There are many high-paying positions for veteran workers in this cluster as well. A qualified accountant brings in \$68,640 and an underwriter, \$66,020. While the entry-level wage for a financial advisor is less than \$36,000, someone in this field with experience can expect to earn more than \$100,000.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
General Office Clerks - perform various office duties including record keeping, filing and mail distribution.	CRE	132,900	3,124	\$15,180	\$24,040	\$24,440	ST OJT	W	Other, BFS	PA OOH (General Office Clerks); International Association of Administrative Professionals
General Managers - plan, direct and coordinate the operations of a company or organization.	EC	104,920	2,717	\$42,870	\$90,530	\$93,580	BD+	C	Other	PA OOH (General Managers & Top Executives); American Management Association
Janitors - keep buildings clean by operating cleaning equipment and removing trash.	R	111,010	2,636	\$14,390	\$21,230	\$20,800	ST OJT	W	BFS, ED Other	PA OOH (Janitors & Cleaning Supervisors); International Executive Housekeepers Association
Customer Service Representatives - handle customer inquiries and complaints about products and services.	CES	89,170	2,289	\$18,180	\$27,610	\$29,350	MT OJT	W	BFS	PA OOH (Customer Service Representatives)
Bank Tellers - receive and pay out money. Record all negotiable items involved in financial transactions.	CE	26,830	1,369	\$15,560	\$20,070	\$21,650	ST OJT	W	BFS	PA OOH (Bank Tellers); American Bankers Association
Landscapers & Groundskeepers - maintain property by planting, watering, fertilizing, raking and mowing.	R	43,170	1,337	\$14,870	\$22,470	\$22,260	ST OJT	W	BFS	PA OOH (Landscaping, Groundskeeping, Nursery, Greenhouse & Lawn Service Occupations); Associated Landscape Contractors of America

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Administrative Assistants</u> - provide high-level administrative support such as performing research and preparing reports.	CES	65,540	1,301	\$24,050	\$34,730	\$37,350	MT OJT	W	BFS	PA OOH (Secretaries); International Association of Administrative Professionals
<u>Clerical Supervisors</u> - oversee activities of clerical and support workers.	ECS	61,900	1,282	\$27,930	\$45,310	\$44,890	WK EXP	W	BFS, Other	PA OOH (Office & Administrative Support Supervisors); International Association of Administrative Professionals
<u>Security Guards</u> - patrol grounds or stand guard at entrances to prevent theft, violence or other violations.	SEC	40,250	1,102	\$12,400	\$17,170	\$22,380	ST OJT	W	BFS	PA OOH (Security Guards)
<u>Secretaries</u> - schedule meetings, make appointments, type letters and handle incoming mail.	CES	94,890	1,093	\$17,340	\$26,330	\$27,520	MT OJT	W	Other, BFS	PA OOH (Secretaries); International Association of Administrative Professionals
<u>Bookkeeping & Accounting Clerks</u> - compute and record data about business transactions in order to keep financial records complete.	C	68,780	1,071	\$18,250	\$28,270	\$30,280	MT OJT	W	Other, BFS	PA OOH (Bookkeeping, Accounting & Auditing Clerks); American Institute of Professional Bookkeepers
<u>Accountants & Auditors</u> - analyze financial reports and offer advice to businesses or individuals.	CE	40,690	1,059	\$33,710	\$57,000	\$57,160	BD	C	BFS, Other	PA OOH (Accountants & Auditors); American Institute of Certified Public Accountants
<u>Chief Executives</u> - formulate policies and provide overall direction to an organization within guidelines established by a board of directors.	ECS	36,350	963	\$68,040	\$138,640	\$140,880	BD+	C	Other, BFS	PA OOH (General Managers & Top Executives); American Management Association
<u>Financial Managers</u> - plan or direct the financial activities of a company.	EC	37,470	852	\$44,630	\$84,340	\$94,180	BD+	C	BFS	PA OOH (Financial Managers); Financial Executives Institute
<u>Management Analysts</u> - analyze organizational systems and suggest improvements to allow more efficient and effective operation.	CEI	24,780	750	\$41,030	\$76,330	\$73,460	BD+	C	BFS, ICS	PA OOH (Management Analysts); Institute of Management Consultants USA Inc.
<u>Lawyers</u> - conduct civil or criminal suits, draw up documents and advise clients about their legal rights.	E	31,280	739	\$52,350	\$104,080	\$110,590	PROF	C	BFS	PA OOH (Lawyers & Judicial Workers); American Bar Association, Pennsylvania Bar Association
<u>Bill & Account Collectors</u> - locate and notify customers of delinquent accounts to solicit payment.	CE	22,770	670	\$19,270	\$27,130	\$29,460	ST OJT	W	BFS	PA OOH (Claims Adjusters, Investigators & Collectors); Association of Credit and Collection Professionals

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Sales Managers</u> - coordinate the sales distribution or movement of a product or service to the customer.	EC	19,580	643	\$43,890	\$88,470	\$96,950	BD+		BFS, Other	PA OOH (Advertising, Marketing & Public Relations Managers); Sales and Marketing Executives International
<u>Insurance Sales Agents</u> - sell life, property, health, automotive and other types of insurance.	ESC	20,840	629	\$24,860	\$51,580	\$56,310	BD		BFS, LS	PA OOH (Insurance Sales Agents); Sales and Marketing Executives International
<u>Administrative Services Managers</u> - direct the supportive services department of an organization.	EC	17,090	471	\$31,790	\$65,010	\$68,120	BD+		BFS, Other	PA OOH (Administrative Services Managers); International Facility Management Association
<u>Legal Secretaries</u> - perform secretarial duties utilizing legal terminology and documents.	CE	15,750	428	\$24,950	\$36,870	\$38,870	PS VOC		BFS	PA OOH (Secretaries); National Association of Legal Secretaries
<u>Billing Clerks</u> - compile data, compute charges and prepare billing invoices.	C	22,460	371	\$19,900	\$27,370	\$28,460	ST OJT		LS	PA OOH (Billing Clerks & Billing Machine Operators)
<u>Personal Financial Advisors</u> - use tax and investment strategies to advise clients on financial plans.	SEC	9,810	363	\$35,690	\$78,760	\$83,060	BD		BFS	PA OOH (Financial Analysts & Personal Financial Advisors); Financial Planning Association
<u>Securities Sales Representatives</u> - buy and sell securities in investment or trading firms.	ECS	14,790	360	\$33,870	\$82,020	\$87,520	BD		BFS	PA OOH (Securities Sales Representatives); Securities Industry Association
<u>Human Resources Managers</u> - coordinate the labor relations, personnel and training activities of an organization.	ESC	12,610	319	\$41,120*	\$73,150*	\$80,200*	BD+		BFS	PA OOH (Human Resources Specialists & Managers); American Society for Training and Development
<u>Training Specialists</u> - develop and conduct training programs for employees.	SEC	9,780	300	\$28,440	\$48,280	\$48,360	BD		BFS, Other	PA OOH (Human Resources Specialists & Managers); American Society for Training and Development
<u>Marketing Managers</u> - determine the demand for products and services, develop pricing strategies and identify potential customers.	EC	10,580	295	\$46,620	\$90,200	\$100,020	BD+		BFS	PA OOH (Advertising, Marketing & Public Relations Managers); Sales and Marketing Executives International
<u>Paralegals</u> - help lawyers by researching law, investigating facts and preparing legal documents for use in legal actions.	ECS	10,300	251	\$27,580	\$40,080	\$42,740	AD		BFS	PA OOH (Paralegals); National Federation of Paralegal Associations

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Cleaning Worker Supervisors</u> - supervise work activities of cleaning personnel.	ERC	8,860	249	\$21,410	\$34,230	\$32,490	WK EXP	W	BFS, ED	PA 00H (Blue Collar Supervisors)
<u>Claims Adjusters</u> - review claims to determine that settlements are in accordance with procedures.	EC	13,070	244	\$27,180	\$44,790	\$49,080	LT OJT	W	BFS, LS	PA 00H (Claims Adjusters, Investigators & Collectors); Insurance Information Institute
<u>Graphic Designers</u> - design or create graphics to meet specific commercial or promotional needs.	AER	8,940	240	\$23,560	\$37,580	\$41,910	BD	C	BFS	PA 00H (Designers); American Institute of Graphic Arts
<u>Real Estate Managers</u> - direct buying, selling, leasing or governance activities of real estate properties.	EC	7,450	237	\$32,580	\$59,020	\$50,350	BD	C	BFS	PA 00H (Property & Real Estate Managers) Institute of Real Estate Management
<u>Loan Officers</u> - evaluate, authorize or recommend approval of loans. Advise borrowers on their financial status and payment methods.	ESC	8,230	216	\$29,770	\$49,380	\$59,470	BD	C	BFS	PA 00H (Loan Officers & Counselors); Mortgage Bankers Association of America
<u>Human Resources Clerks</u> - compile and keep personnel records for each employee.	CES	7,630	210	\$23,280	\$33,060	\$33,250	ST OJT	W	Other, BFS	PA 00H (Human Resources Clerks); Society for Human Resource Management
<u>Financial Analysts</u> - analyze quantitative information that affects the investment programs of institutions.	ICE	8,000	209	\$35,570	\$57,980	\$71,280	BD	C	BFS	PA 00H (Financial Analysts & Personal Financial Advisors); American Academy of Financial Management
<u>Real Estate Agents</u> - rent, buy or sell property to clients.	ERI	7,670	205	\$24,340	\$43,880	\$50,440	PS VOC	T	BFS	PA 00H (Real Estate Agents & Brokers); National Association of Realtors
<u>Public Relations Specialists</u> - use communications media to promote ideas, services or products.	EAS	4,800	143	\$26,030	\$50,180	\$50,460	BD	C	Other, BFS	PA 00H (Public Relations Specialists); Public Relations Society of America
<u>Telemarketers</u> - solicit orders for goods or services over the telephone.	ECS	18,820	130	\$15,100	\$24,990	\$23,520	ST OJT	W	BFS	PA 00H (Services Sales Representatives)
<u>Travel Agents</u> - plan and sell transportation and accommodations.	ESC	3,830	100	\$19,050	\$29,830	\$30,010	PS VOC	T	BFS	PA 00H (Travel Agents); Institute of Certified Travel Agents

Education (ED)

Workers in the ED cluster perform a vital role in our society; they teach children and adults the knowledge and skills they'll need to be productive in their career and life. Industries in this cluster include the educational facilities for elementary school students through university students, as well as technical schools and junior colleges. Also included are museums and historical sites, school bus transportation, child day care services and public agencies that oversee education programs.

Jobs within this cluster include elementary and secondary school teachers, teacher assistants, janitors, school bus drivers and

education administrators. Teachers' workdays may not end when students are dismissed for the day. After school, they may prepare lessons, grade homework and tests, take classes or coach sports teams. In the summer, some educators teach summer school or take classes themselves.

In Pennsylvania, the ED cluster makes up approximately 10 percent of the total jobs in the state with an annual average wage of \$35,121. College faculty positions usually require the highest educational levels among the jobs in this cluster; therefore, they earn the highest wages. Teaching positions normally require a doctoral degree to obtain full-time status.

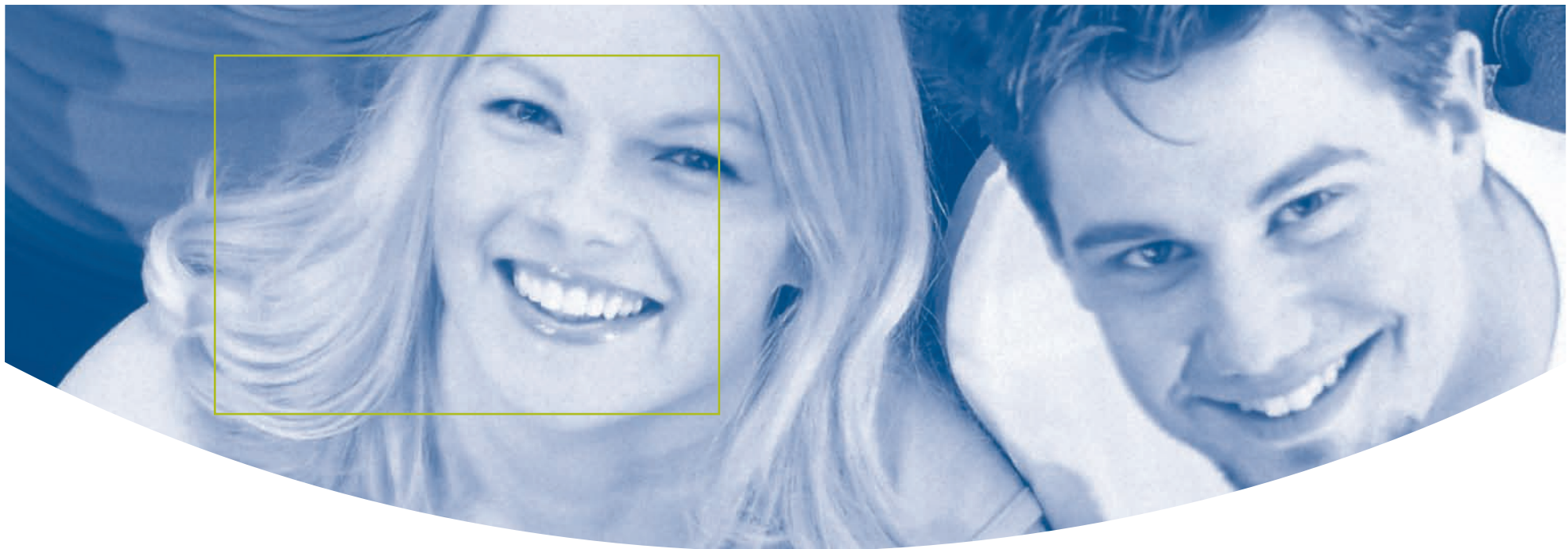
Depending on your area of study, experienced postsecondary teachers can make anywhere from \$63,000 (Art, Drama & Music) to \$103,000 (Health Specialties). For those whose interests lie in teaching younger or special-needs children, an established elementary school teacher earns \$58,730 and an established special education teacher earns around \$59,000.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Postsecondary Teachers - teach one or more subjects within a prescribed curriculum to undergraduate and graduate students.	SIA	88,120	3,179	\$34,000*	\$62,720*	\$62,000*	MD	C	ED	PA 00H (College & University Faculty)
Child Care Workers - provide basic care for children during the day.	S	42,390	1,722	\$12,580	\$17,740	\$18,060	ST OJT	W	ED, Other	PA 00H (Preschool Teachers & Child Care Workers); Center for the Child Care Workforce
Secondary School Teachers - teach subjects to high school students in public or private schools.	S	53,600	1,605	\$32,290	\$49,880	\$48,980	BD	C	ED	PA 00H (School Teachers Kindergarten, Elementary & Secondary); National and Pennsylvania State Education Associations
Elementary School Teachers - provide basic academic and social instruction to young students in public or private schools.	S	65,620	1,596	\$31,250	\$49,570	\$46,350	BD	C	ED	PA 00H (School Teachers - Kindergarten, Elementary & Secondary); National and Pennsylvania State Education Associations
Teacher Assistants - assist teachers by arranging materials, keeping records or supervising students.	SC	46,810	1,205	\$14,120	\$19,630	\$20,750	ST OJT	W	ED	PA 00H (Teacher Assistants); American Federation of Teachers

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Special Education Teachers</u> - teach elementary or secondary school subjects to physically, emotionally or mentally challenged students.	SA	19,480	621	\$34,280*	\$50,630*	\$48,770*	BD	C	ED	PA OOH (Special Education Teachers); National Association of Special Education Teachers
<u>Education Administrators</u> - plan, organize and direct the educational activities of educational institutions.	SE	19,760	617	\$43,650*	\$69,310*	\$71,320*	BD+	C	ED	PA OOH (Education Administrators); Pennsylvania Child Care Association; American Association of School Administrators
Preschool Teachers - conduct activities designed to promote social, physical and intellectual growth in young children, up to the age of 5.	SA	19,710	582	\$14,800	\$22,770	\$24,560	BD	C	ED	PA OOH (Preschool Teachers & Child Care Workers); Center for the Child Care Workforce
<u>Middle School Teachers</u> - teach one or more subjects to middle school students in public or private schools.	S	23,060	555	\$34,180	\$51,460	\$47,170	BD	C	ED	PA OOH (School Teachers - Kindergarten, Elementary & Secondary); National and Pennsylvania State Education Associations
<u>Self-Enrichment Teachers</u> - teach courses that do not lead to an occupational objective or a degree.	SA	7,890	285	\$16,170	\$34,430	\$35,980	WK EXP	W	ED, Other	PA OOH (Adult & Vocational Education Teachers)
<u>Vocational & School Counselors</u> - provide educational and vocational guidance services.	S	10,670	250	\$26,560	\$44,320	\$48,100	MD	C	ED, Other	PA OOH (Educational & Vocational Counselors); American Counseling Association
<u>Library Technicians</u> - help readers locate books and materials, answer questions, shelve books and repair/remove damaged books.	CS	5,410	231	\$16,050	\$25,620	\$26,720	ST OJT	W	ED, Other	PA OOH (Library Technicians); American Library Association
<u>Medical Scientists</u> - conduct research in order to understand human diseases and improve human health.	IRS	6,890	209	\$32,160	\$66,360	\$68,240	PhD	C	ED, LS	PA OOH (Biological & Medical Scientists); American Society for Microbiology
<u>Librarians</u> - maintain library collections of books, audio-visual and other materials.	ACI	6,800	167	\$27,900	\$47,140	\$48,700	MD	C	ED, Other	PA OOH (Librarians); American Library Association
<u>Vocational Education Teachers</u> - teach vocational or occupational subjects to secondary students.	S	4,810	141	\$37,320	\$52,530	\$48,840	BD	C	ED	PA OOH (Adult & Vocational Education Teachers); National and Pennsylvania State Education Associations

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Kindergarten Teachers</u> - teach basic skills to children aged 4 to 6 years.	SA	6,390	128	\$27,880	\$45,930	\$44,940	BD	C	ED	PA 00H (School Teachers -Kindergarten, Elementary & Secondary); National and Pennsylvania State Education Associations
<u>Instructional Coordinators</u> - develop instructional material that provides guidelines to educators for developing curricula and conducting courses.	SIA	4,350	125	\$27,450	\$51,710	\$52,480	MD	C	ED	American Association of School Administrators
<u>ESL & GED Teachers</u> - teach GED preparatory, literacy or English as a Second Language classes to out-of-school youths or adults.	SA	3,790	78	\$22,750	\$34,420	\$43,500	BD	C	ED, Other	PA 00H (Adult & Vocational Education Teachers)





Information and Communication Services (ICS)

The ICS cluster includes businesses that produce and distribute information using movies, television and newspapers. Also included are industries that deal with information technology such as computer system design and data processing. ICS workers may write or edit newspaper articles, design computer programs and web pages or enter data into computers.

Jobs in this cluster include computer systems analysts, network system administrators, editors, writers, authors and desktop publishers. The job market for these careers is very competitive. Those having a degree in liberal arts or some technical field have

the best chance for employment. While most careers in information technology require a bachelor's degree, workers with certification and practical experience may be able to slip into lower level positions.

In Pennsylvania, the ICS cluster makes up less than 4 percent of the total jobs in the state with an annual average wage of \$56,742. Total employment in this cluster is among the smallest of the statewide clusters, but the average wages demonstrate its significance to Pennsylvania's economy.

Even for experienced workers, wages in this cluster range from \$48,470 for an experienced computer support specialist to \$89,110 for an experienced systems software engineer. Experienced computer programmers fall in the middle at \$71,640. For those leaning toward media occupations, an experienced editor can expect a wage of \$53,930.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Systems Analysts</u> - analyze scientific, engineering and business problems for application to electronic data processing systems.	ICR	23,220	667	\$45,460	\$66,580	\$69,470	BD	C	ICS, BFS, Other	PA 00H (Computer Systems Analysts, Engineers & Scientists); Association for Computing Machinery
<u>Computer Support Specialists</u> - provide technical assistance, in person or by phone, to computer users.	CIR	24,240	629	\$25,910	\$40,950	\$43,660	AD	T	ICS, BFS	PA 00H (Computer Systems Analysts, Engineers & Scientists); Association of Support Professionals
<u>Computer Programmers</u> - develop or write programs to store, find or retrieve information.	IRC	22,570	597	\$38,630	\$60,640	\$66,480	BD	C	ICS, BFS	PA 00H (Computer Programmers); Institute of Electrical and Electronics Engineers Computer Society
<u>Computer Managers</u> - coordinate the activities of computer-related workers.	ECI	16,310	558	\$55,740	\$93,310	\$100,110	BD+	C	BFS, ICS	PA 00H (Engineering, Natural Science & Computer Managers)
<u>Applications Engineers</u> - develop and modify computer applications software and/or design customized software.	IRC	13,850	484	\$50,960	\$73,860	\$78,570	BD	C	ICS, BFS	PA 00H (Computer Programmers); Institute of Electrical and Electronics Engineers Computer Society
<u>Network Systems Analysts</u> - analyze, design, test and evaluate network systems.	IR	9,500	406	\$38,040	\$62,370	\$64,080	BD	C	ICS, BFS	PA 00H (Computer Systems Analysts, Engineers & Scientists); National Workforce Center for Emerging Technologies

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Network Systems Administrators - install, configure and support an organization's network systems.	IRC	13,260	380	\$40,180	\$60,850	\$62,300	BD	C	ICS, BFS	PA 00H (Computer Systems Analysts, Engineers & Scientists); System Administrators Guild
Systems Engineers - research, design, develop and test operating systems-level software.	IRC	10,040	329	\$55,540	\$77,920	\$83,460	BD	C	ICS	PA 00H (Computer Programmers); Institute of Electrical and Electronics Engineers Computer Society
Telecommunications Line Workers - string and repair telephone and TV cable for transmitting messages or programming.	R	6,740	252	\$28,210	\$45,400	\$42,560	LT OJT	W	ICS, BC	PA 00H (Line Installers & Repairers); Communications Workers of America
Database Administrators - coordinate changes to computer databases or code.	ICR	5,740	191	\$36,880	\$60,130	\$64,380	BD	C	ICS, BFS, Other	PA 00H (Computer Systems Analysts, Engineers & Scientists); National Workforce Center for Emerging Technologies
Editors - coordinate and edit written material for production.	AES	4,920	151	\$26,480	\$44,780	\$50,370	BD	C	ICS	PA 00H (Writers & Editors); Society for Technical Communication
Advertising Sales Agents - sell or solicit advertising, including graphic art, space in publications, custom made signs, or TV and radio time.	ECS	5,930	146	\$21,460	\$47,740	\$50,090	MT OJT	W	ICS, BFS	PA 00H (Services Sales Representatives); The Newspaper Association of America
Writers & Authors - originate and prepare written material.	ASE	4,420	137	\$21,720	\$41,090	\$52,150	BD	C	ICS, BFS	PA 00H (Writers & Editors); The Newspaper Guild
Photographers - photograph persons, subjects or other commercial products. May develop negatives and prints.	AR	4,840	123	\$16,520	\$28,660	\$31,630	LT OJT	W	ICS, BFS, AFP	PA 00H (Photographers & Camera Operators); Professional Photographers of America
Environmental Engineers - design, plan or perform engineering duties in the prevention, control and remediation of environmental health hazards.	IRC	2,270	84	\$41,500	\$69,140	\$69,200	BD	C	ICS	PA 00H (Engineering, Natural Science & Computer Managers); American Academy of Environmental Engineers
Technical Writers - write technical materials, such as equipment manuals, appendices or operating and maintenance instructions.	AI	1,810	69	\$31,350	\$47,100	\$57,420	BD	C	ICS, BFS	PA 00H (Writers & Editors); Society for Technical Communication
Desktop Publishers - use a computer to position type and art elements into a completed page.	RA	1,860	65	\$23,900	\$37,830	\$34,210	PS VOC	T	AMDM, ICS	PA 00H (Desktop Publishers); Graphic Arts Information Network
Computer & Information Scientists - conduct research into fundamental computer science. Solve computer hardware and software problems.	IRC	630	14	\$57,570	\$93,470	\$90,860	PhD	C	ICS, LS	PA 00H (Computer Systems Analysts, Engineers & Scientists); Institute of Electrical and Electronics Engineers Computer Society



Life Sciences (LS)

The LS cluster studies all aspects of the health and well-being of the population through patient care or medical research. Industries within this cluster include hospitals, nursing homes, physicians' offices and pharmacies. Due to the health care needs of the growing elderly population, this cluster is one of the fastest growing in Pennsylvania.

Jobs in this cluster include nurses, social workers, pharmacists, physicians, chemists and substance abuse counselors. Human services workers – such as psychologists, counselors and clergy – help individuals and families identify and solve their problems.

Health care workers provide medical diagnoses and basic care for sick and injured people. Although most interact directly with patients, health care technicians perform many behind the scenes tasks.











In Pennsylvania, the LS cluster makes up almost 16 percent of the total jobs in the state with an annual average wage of \$39,366. There are many openings in health care that require only short-term on-the-job training, such as medical assistants and home health aides. Two or three years of postsecondary education are needed for other positions such as respiratory therapists or dental hygienists.

For those willing to pursue a degree, the rewards are well worth the effort. An established dentist will earn \$141,040 and an established registered nurse, \$60,950. For those interested in the behind-the-scenes positions in research, an experienced biochemist earns \$85,000 and an experienced biomedical engineer, \$75,280.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

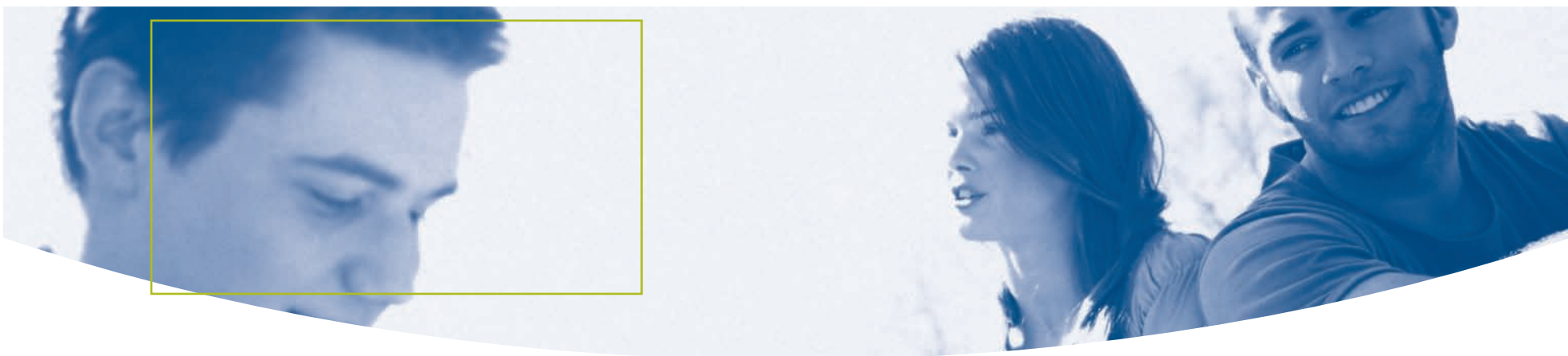
Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Registered Nurses - provide care to sick or injured persons. Administer medications and treatments as directed by a physician.	SIR	136,910	4,111	\$39,110	\$53,670	\$55,680	AD	T	LS	PA OOH (Registered Nurses); American Nurses Association
Receptionists - greet office visitors and direct them accordingly. May answer phones and perform other clerical duties.	CES	58,700	2,129	\$15,380	\$22,290	\$22,900	ST OJT	W	LS, Other, BFS	PA OOH (Receptionists)
Nursing Aides - ensure patient comfort. May answer call bells and serve food trays.	SRE	81,140	1,964	\$18,300	\$22,750	\$21,890	ST OJT	W	LS	PA OOH (Nursing & Psychiatric Aides); National Association of Health Career Schools
Personal Care Aides - assist elderly or disabled adults with daily activities in a non-residential facility or the person's home.	SRE	36,600	1,239	\$14,090	\$19,350	\$17,560	ST OJT	W	LS, Other	PA OOH (Home Health & Personal Care Aides); National Association for Home Care
Home Health Aides - provide routine, personal healthcare to elderly or disabled individuals at the person's home or in a residential care facility.	SRC	32,310	1,172	\$14,990	\$19,180	\$19,200	ST OJT	W	LS	PA OOH (Home Health & Personal Care Aides); National Association for Home Care

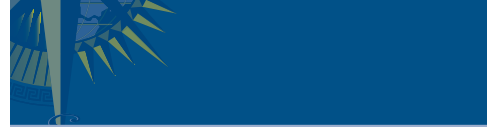
Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Licensed Practical Nurses - care for patients who are less than acutely ill or assist registered nurses with the seriously ill.	SRI	39,500	1,094	\$27,350	\$37,040	\$35,580	PS VOC	T	LS	PA 00H (Licensed Practical Nurses); National League for Nursing
Medical Assistants - schedule and prepare patients for exams and treatments. May assist the physician with routine tests.	SCR	24,050	1,062	\$18,870	\$24,570	\$25,860	MT OJT	W	LS	PA 00H (Medical Assistants); American Association of Medical Assistants
Social Workers - counsel or aid individuals and families who require social service assistance.	S	32,170	1,014	\$22,230*	\$33,740*	\$38,840*	MD	C	Other, LS	PA 00H (Social & Human Services Workers); National Association of Social Workers
Social & Human Service Assistants - assist with client services related to human issues, such as counseling and social work.	SC	19,790	804	\$15,440	\$23,940	\$26,300	MT OJT	W	Other, LS	PA 00H (Social & Human Services Workers)
Emergency Medical Technicians - administer first aid to patients as they are transported to a medical facility.	SRI	18,170	585	\$17,540	\$25,310	\$27,940	PS VOC	T	LS	PA 00H (Emergency Medical Technicians & Paramedics); National Registry of Emergency Medical Technicians
Dental Assistants - greet patients, schedule appointments and keep records. May help with laboratory work.	SRE	10,540	483	\$18,340	\$25,930	\$29,570	MT OJT	W	LS, ED, BFS	PA 00H (Dental Assistants); American Dental Assistants Association
Health Services Managers - plan and direct the delivery of healthcare services.	ESI	13,260	428	\$44,140	\$74,680	\$75,830	BD+	C	LS	PA 00H (Health Services Managers); American College of Healthcare Executives (ACHE)
Mental Health Counselors - counsel individuals with emphasis on prevention and promote optimum mental health.	S	9,680	371	\$21,860	\$31,160	\$36,630	MD	C	LS	PA 00H (Counselors); American Counseling Association; National Board for Certified Counselors
Pharmacists - compound and dispense medications following prescriptions issued by medical practitioners.	IC	11,970	366	\$63,010	\$80,170	\$86,910	PROF	C	LS	PA 00H (Pharmacists); American Pharmaceutical Association
Medical Secretaries - perform secretarial duties utilizing knowledge of medical terminology and hospital, clinic and laboratory procedures.	CE	14,390	327	\$19,210	\$26,040	\$28,250	PS VOC	T	LS	PA 00H (Secretaries); Association of Medical Secretaries, Practice Managers, Administrators and Receptionists
Pharmacy Technicians - measure, mix, label and record medications under the direction of a pharmacist.	CRI	11,870	320	\$15,160	\$21,290	\$25,150	MT OJT	W	LS	PA 00H (Pharmacy Technicians & Assistants); Pharmacy Technician Certification Board

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Clergy - provide spiritual and moral guidance through worship services or other religious functions.	S	12,230	318	\$17,370	\$32,910	\$41,210	MD		LS, Other	PA OOH (Clergy)
Medical Laboratory Technicians - perform routine tests used in the treatment and diagnosis of diseases.	RIC	9,580	300	\$23,520	\$33,290	\$32,820	AD		LS	PA OOH (Clinical Laboratory Technologists & Technicians); American Society for Clinical Laboratory Science
Dental Hygienists – clean teeth and examine patients for tooth decay and other oral diseases.	SCR	9,480	298	\$35,740	\$49,300	\$59,790	AD		LS	PA OOH (Dental Hygienists); American Dental Hygienists' Association
Physical Therapists - develop and organize rehabilitative programs to help patients recover from or adjust to injuries or disabilities.	SRI	9,550	270	\$45,250	\$63,720	\$63,690	MD		LS	PA OOH (Physical Therapists); American Physical Therapy Association
Clinical & School Psychologists - diagnose and treat mental disorders, learning disabilities and cognitive, behavioral and emotional problems.	ISA	7,210	261	\$31,790	\$58,320	\$63,340	MD		LS, ED, Other	PA OOH (Psychologists); National Association of School Psychologists
Family & General Practitioners - diagnose, treat and help prevent diseases and injuries that commonly occur in the general population.	IES	10,740	257	\$72,560	\$131,840	\$137,980	PROF		LS	PA OOH (Physicians); American Academy of Family Physicians
Medical Records Technicians - compile, process and maintain medical records of hospital and clinic patients.	CR	7,520	243	\$19,660	\$28,500	\$28,160	AD		LS	PA OOH (Health Information Technicians); American Health Information Management Association
Radiologic Technologists - take CAT scans and X-rays or administer non-radioactive materials into patient's blood stream for diagnostic purposes.	RIC	9,510	222	\$31,570	\$43,090	\$45,900	AD		LS	PA OOH (Radiologic Technologists); American Society of Radiologic Technologists
Respiratory Therapists - assess, treat and care for patients with breathing problems and disorders.	IRS	4,990	208	\$35,840	\$44,300	\$45,310	AD		LS	PA OOH (Respiratory Therapists); American Association for Respiratory Care
Medical Transcriptionists - transcribe dictation, translate medical jargon and edit medical reports.	R	7,340	196	\$21,460	\$26,860	\$29,530	PS VOC		LS	PA OOH (Court Reporters, Medical Transcriptionists & Stenographers); American Association for Medical Transcription

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Medical Laboratory Technologists - perform complex medical laboratory tests for diagnosis, treatment and prevention of disease.	IR	6,670	194	\$34,340	\$45,080	\$47,610	BD	C	LS	PA OOH (Clinical Laboratory Technologists & Technicians); American Medical Technologists
Chemists - conduct chemical analyses or laboratory experiments for quality control or new product development.	IR	4,740	178	\$36,020	\$60,740	\$62,400	BD	C	LS, AMDM	PA OOH (Chemists); American Chemical Society
<u>Speech-Language Pathologists</u> - assess and treat persons with speech, language, voice and fluency disorders.	SIR	4,270	149	\$39,760	\$59,600	\$56,850	MD	C	LS, ED	PA OOH (Speech-Language Pathologists & Audiologists); American Speech-Language-Hearing Association
Occupational Therapists - plan and conduct rehabilitative programs that help disabled individuals perform everyday tasks.	SRI	4,980	147	\$40,980	\$57,550	\$57,610	BD	C	LS	PA OOH (Occupational Therapists); American Occupational Therapy Association
Substance Abuse Counselors - counsel and advise individuals with alcohol, tobacco, drug or other problems, such as gambling or eating disorders.	S	4,190	145	\$21,390	\$30,900	\$35,170	MD	C	LS	PA OOH (Counselors); American Counseling Association; National Association of Alcohol and Drug Abuse Counselors
<u>Massage Therapists</u> - massage customers for hygienic or remedial purposes.	SR	3,430	133	\$12,410	\$28,420	\$37,170	PS VOC	T	Other, LS	American Massage Therapy Association; Associated Bodywork and Massage Professionals
<u>Physician Assistants</u> - care for patients under the supervision of a doctor. Gather patient histories or order laboratory tests.	ISA	3,420	128	\$39,820	\$57,030	\$68,500	BD	C	LS	PA OOH (Physician Assistants); American Academy of Physician Assistants
<u>Rehabilitation Counselors</u> - counsel individuals to maximize the independence and employability of persons coping with personal, social and vocational difficulties.	S	3,310	120	\$19,290	\$29,230	\$30,820	MD	C	LS, Other	PA OOH (Counselors); American Counseling Association; National Rehabilitation Counseling Association
Physical Therapist Assistants - assist physical therapists in providing physical therapy treatments and procedures.	SR	3,080	109	\$25,630	\$34,310	\$38,050	AD	T	LS	PA OOH (Physical Therapist Assistants & Aides); American Physical Therapy Association
Biological Technicians - assist biological and medical scientists in laboratories.	RIC	3,240	94	\$26,010	\$38,070	\$36,520	AD	T	LS	PA OOH (Science Technicians)
Surgical Technologists - prepare instrument trays and assist surgeons during surgical procedures.	RSC	3,890	85	\$23,670	\$31,480	\$35,560	PS VOC	T	LS	PA OOH (Surgical Technologists); Association of Surgical Technologists

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Biochemists & Biophysicists - conduct research on living cells and organisms in order to gain knowledge of complex biological processes.	IRC	1,790	84	\$49,320	\$73,110	\$72,160	PhD	C	LS	PA 00H (Biological & Medical Scientists); Federation of American Societies for Experimental Biology
Cardiovascular Technologists - conduct tests on pulmonary and/or cardiovascular systems of patients for diagnostic purposes.	IRS	2,750	84	\$23,990	\$38,440	\$40,770	AD	T	LS	PA 00H (Cardiovascular Technologists & Technicians); Alliance of Cardiovascular Professionals
Nuclear Engineers - conduct research on nuclear engineering problems, including nuclear waste disposal.	IRC	2,510	59	\$70,080	\$83,280	\$89,320	BD	C	Other, LS	PA 00H (Nuclear Engineers); American Nuclear Society
Medical Appliance Technicians - construct or maintain medical support devices.	RI	1,280	45	\$14,990	\$29,560	\$32,020	LT OJT	W	LS	American Academy of Orthotists and Prosthetists
Dental Laboratory Technicians - construct or repair dental appliances.	RI	1,530	40	\$17,580	\$31,980	\$33,810	LT OJT	W	LS	PA 00H (Dental Laboratory Technicians); National Board for Certification in Dental Technology
Statisticians - gather and summarize numerical data in a usable format.	IC	640	21	\$32,420	\$60,490	\$63,950	MD	C	LS, BFS	PA 00H (Statisticians); American Statistical Association
Biomedical Engineers - design, develop and evaluate biological and health systems and products.	IRC	540	20	\$45,350	\$65,300	\$74,150	BD	C	LS, ICS	PA 00H (Biomedical Engineers); Biomedical Engineering Society





Logistics and Transportation (LT)

The LT cluster includes industries that are involved in the storage, transportation and distribution of the goods we use in every day life. Workers in this cluster may fly a plane, stack a pallet with warehouse merchandise or perform logistical analysis to find the most efficient route to ship products. Industries include general warehousing and storage, couriers, general freight trucking, specialized trucking, railroads and air traffic control.

Jobs in this cluster include laborers, truck drivers, packers, packagers and flight attendants. Nearly one out of every three workers in LT is a truck driver, including heavy truck, tractor-trailer, light truck and route sales drivers.

In Pennsylvania, the LT cluster makes up 2.5 percent of the total jobs in the state with an annual average wage of \$36,588. The skills and training needed by air transportation workers range from extensive specialized training for pilots to minimal on-the-job training for ground crews and baggage handlers.

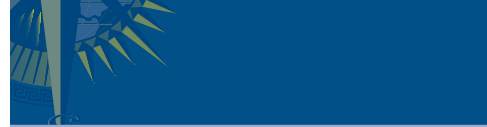
In LT, experienced workers realize the rewards of advanced training and skill attainment. Trained tractor-trailer truck drivers make \$40,890 and skilled bus and truck mechanics make \$40,440. Dispatchers with several years of experience earn more than \$38,000 per year.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
General Laborers - manually move freight, stock or other materials.	R	86,240	2,644	\$15,710	\$24,110	\$22,190	ST OJT	W	Other, LT	PA OOH (Handlers, Equipment Cleaners, Helpers & Laborers)
Truck Drivers, Heavy - drive large tractor-trailers to transport and deliver goods and materials.	R	92,760	2,364	\$24,800	\$35,520	\$34,920	MT OJT	W	LT, Other	PA OOH (Truck Drivers); American Trucking Associations
Truck Drivers, Light - drive a small truck, van or automobile to deliver or pick up merchandise.	R	57,030	1,026	\$15,740	\$26,340	\$26,640	ST OJT	W	Other	PA OOH (Truck Drivers); American Trucking Associations
Industrial Truck & Tractor Operators - move materials around a factory, storage yard, warehouse or other location using industrial machinery.	R	32,740	802	\$21,700	\$28,520	\$28,390	ST OJT	W	LT, AMDM	PA OOH (Material Moving Equipment Operators) Industrial Truck Association
Bus & Truck Mechanics - repair and maintain trucks, buses and other diesel engines.	R	15,590	454	\$24,510	\$35,130	\$37,020	PS VOC	T	Other, LT	PA OOH (Diesel Mechanics & Service Technicians); American Trucking Associations
Shipping & Receiving Clerks - prepare items for shipment and maintain records on incoming and outgoing materials.	CR	29,270	411	\$17,730	\$26,940	\$26,270	ST OJT	W	Other, AMDM	PA OOH (Shipping, Receiving & Traffic Clerks); National Retail Federation

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Bus Drivers</u> - drive a bus or motor coach, including regular routes, charters and private carriages.	RSC	12,580	289	\$19,180	\$31,110	\$31,750	MT OJT	W	Other, LT	PA OOH (Bus Drivers); American Bus Association; United Motorcoach Association
<u>Transportation Supervisors</u> - oversee activities of transportation and material-moving equipment workers.	ERC	9,200	256	\$30,720	\$48,720	\$49,310	WK EXP	W	Other, LT	PA OOH (Blue Collar Supervisors)
<u>General Laborer Supervisors</u> - coordinate the activities of helpers, laborers or material movers.	ECR	6,700	189	\$27,940	\$44,660	\$40,770	WK EXP	W	Other	PA OOH (Blue Collar Supervisors)
<u>Transportation & Storage Managers</u> - direct all transportation, storage or distribution activities.	EC	6,230	171	\$45,330	\$72,450	\$73,050	WK EXP	W	LT	PA OOH (Blue Collar Supervisors); North American Transportation Management Institute
<u>Dispatchers</u> - schedule and dispatch workers, work crews, equipment or service vehicles.	CR	5,660	134	\$21,090	\$32,660	\$33,240	MT OJT	W	LT, Other	PA OOH (Dispatchers)
<u>Airline Pilots</u> - navigate the flight of multi-engine aircraft to transport passengers and cargo.	REI	3,530	129	N/A	N/A	\$134,090	BD	C	Other	PA OOH (Aircraft Pilots & Flight Engineers); Coalition of Airline Pilots Association
<u>Conveyor Operators</u> - control conveyors that move materials or products.	R	2,510	85	\$23,370	\$31,170	\$27,280	ST OJT	W	Other, LT	N/A
<u>Cargo & Freight Agents</u> - expedite movement of incoming and outgoing cargo and freight shipments.	CRE	1,350	42	\$22,370	\$31,600	\$36,820	MT OJT	W	Other, LT	International Air Transport Association





Lumber, Wood and Paper (LWP)

The LWP cluster begins with logging, moves through sawmills to the manufacturing of wood furniture and paper products. Sales of building materials is also included. Industries within this cluster include home centers, wood cabinet and countertop manufacturers, building material dealers and lumber and wood merchant wholesalers. The home centers industry is both the largest and the best performer in the cluster and industries that cut and machine

raw lumber into other products are among the growing industries. Jobs in this cluster include foresters, cabinetmakers, machine operators and furniture finishers. Pennsylvania is the no. 2 exporter of hardwoods in North America and efforts to sustain our forest resources have provided life-long employment to many workers.

In Pennsylvania, the LWP cluster makes up less than 2 percent of the total jobs in the state with an annual average wage of \$34,317. Experienced sawing machine operators earned \$44,410, while experienced foresters made \$61,370. Supervisors in this cluster can expect to earn \$52,000 to \$58,000.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Cabinetmakers - cut, shape and assemble wooden articles or set up a variety of woodworking machines.	R	6,030	156	\$15,860	\$24,140	\$27,290	LT OJT	W	LWP, AMDM	PA OOH (Woodworking Occupations); Cabinet Makers Association
Woodworking Machine Operators - operate woodworking and wood nailing machines.	R	4,890	144	\$18,620	\$24,660	\$24,090	MT OJT	W	LWP	PA OOH (Woodworking Occupations)
Sawing Machine Operators - operate wood sawing machines.	R	2,070	64	\$23,210	\$37,340	\$24,030	MT OJT	W	LWP	PA OOH (Woodworking Occupations)
Paper Goods Machine Operators - operate paper goods machines.	R	5,490	61	\$20,790	\$30,870	\$31,820	MT OJT	W	LWP	N/A
Furniture Finishers - shape, finish and refinish damaged, worn or used furniture.	R	1,600	31	\$18,260	\$28,560	\$25,530	LT OJT	W	LWP, Other	PA OOH (Woodworking Occupations); American Home Furnishings Alliance
Logging Equipment Operators - drive logging tractors or wheeled vehicles equipped with accessories to fell a tree.	R	760	17	\$15,920	\$27,520	\$29,260	MT OJT	W	LWP	PA OOH (Forestry, Conservation & Logging Occupations)
Log Graders - inspect and grade logs or estimate the marketable content or value of logs or pulpwood.	RC	560	16	\$17,220	\$24,650	\$28,280	MT OJT	W	LWP	PA OOH (Forestry, Conservation & Logging Occupations)
Foresters - manage forestlands for economic, recreational and conservation purposes.	RI	350	12	\$34,360	\$52,370	\$50,840	BD	C	Other, LWP	PA OOH (Forestry, Conservation & Logging Occupations); Society of American Foresters



Other Industries

This cluster includes all industries in Pennsylvania that are not found in one of the nine targeted industry clusters. Some notable groups in this cluster include utilities, wholesale and retail trade, hospitality and miscellaneous services.

Note: Refer to the Quick Reference Guide on page 19 for information regarding all abbreviations and symbols.

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
Food & Beverage Servers - provide food and beverage service to customers. May seat patrons, mix drinks or serve food.	RES	244,970	12,832	\$12,340*	\$15,230*	\$16,000*	ST OJT	W	Other	PA OOH (Food & Beverage Service Occupations); The National Restaurant Association
Cashiers - receive and distribute money in payment for goods or services.	CER	170,380	8,746	\$12,300	\$15,820	\$17,200	ST OJT	W	Other, AFP	PA OOH (Cashiers); United Food and Commercial Workers International Union
Retail Salespersons - sell various products, such as clothing and automobiles.	ES	181,510	6,902	\$13,640	\$21,820	\$22,880	ST OJT	W	Other	PA OOH (Retail Salespersons); National Retail Federation; National Automobile Dealers Association
Cooks & Food Prep Workers - prepare and cook food in restaurants, schools and other establishments.	RCE	127,070	4,676	\$13,850*	\$18,640*	\$19,390*	ST OJT	W	Other	PA OOH (Food & Beverage Service Occupations)
Food Service Helpers - assist food service workers by cleaning tables, replenishing stock, washing dishes or seating patrons.	RSE	68,180	2,212	\$12,400*	\$15,640*	\$16,040*	ST OJT	W	Other	PA OOH (Food & Beverage Service Occupations)
Sales Representatives - sell goods to businesses or individuals on behalf of wholesalers or manufacturers.	ERS	64,800	2,102	\$27,090	\$52,730	\$54,500	MT OJT	W	Other	PA OOH (Manufacturers' & Wholesale Sales Representatives); Manufacturers' Agents National Association
Retail Sales Supervisors - oversee sales workers in retail establishments.	ECS	71,970	1,609	\$22,340	\$37,610	\$37,230	WK EXP	W	Other	PA OOH (Retail Sales Worker Supervisors & Managers); National Retail Federation
General Maintenance Workers - perform maintenance on various machines, equipment or structures to keep them in good working condition.	R	64,030	1,552	\$20,550	\$31,960	\$32,290	LT OJT	W	Other	PA OOH (General Maintenance Mechanics); Associated General Contractors of America

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Automotive Mechanics</u> - adjust, repair and overhaul cars.	R	41,210	1,260	\$19,840	\$31,960	\$34,760	PS VOC	T	Other	PA OOH (Automotive Mechanics & Service Technicians); National Institute for Automotive Service Excellence
<u>Maids & Housekeepers</u> - maintain orderly conditions in commercial establishments or private households.	R	40,520	1,194	\$13,840	\$18,020	\$18,030	ST OJT	W	Other, LS	PA OOH (Janitors & Cleaning Supervisors)
<u>Police Officers</u> - maintain order, protect lives and property and enforce laws in an assigned patrol area.	RES	31,210	1,168	\$30,690	\$47,080	\$46,600	LT OJT	W	Other	PA OOH (Police & Detectives); Grand Lodge Fraternal Order of Police
<u>Hairstylists</u> - shampoo, cut, color and style hair. May apply makeup, dress wigs and perform electrolysis.	EAS	37,060	1,012	\$12,540	\$19,320	\$23,720	PS VOC	T	Other	PA OOH (Barbers & Cosmetologists); National Accrediting Commission of Cosmetology Arts and Sciences
<u>Food Service Supervisors</u> - directly supervise workers engaged in preparing and serving food.	ERC	21,400	608	\$18,750	\$29,940	\$27,600	WK EXP	W	Other	PA OOH (Food Service & Lodging Managers); National Restaurant Association Educational Foundation
<u>Correctional Officers</u> - guard inmates in penal institutions.	RS	18,820	598	\$28,320	\$38,610	\$36,160	MT OJT	W	Other	PA OOH (Correctional Officers); Federal Bureau of Prisons
<u>Sales Representatives, Technical</u> - sell goods requiring technical or scientific knowledge on behalf of wholesalers or manufacturers.	ERS	17,160	578	\$36,750	\$68,430	\$67,730	MT OJT	W	Other, LS	Manufacturers' Agents National Association
<u>Maintenance Worker Supervisors</u> - coordinate the activities of mechanics, installers and repairers.	ERC	17,750	522	\$34,660	\$52,920	\$53,430	WK EXP	W	Other	PA OOH (Blue Collar Worker Supervisors); American Management Association
<u>Postal Mail Carriers</u> - sort mail and deliver items on foot or by vehicle along an established route.	CR	15,740	498	\$35,690	\$44,990	\$44,180	ST OJT	W	Other	PA OOH (Postal Clerks & Mail Carriers); United States Postal Service
<u>Equipment Cleaners</u> - wash and clean vehicles, machinery and other equipment.	R	13,270	480	\$13,310	\$18,500	\$19,730	ST OJT	W	Other	PA OOH (Handlers, Equipment Cleaners, Helpers & Laborers); International Carwash Association
<u>Computer & ATM Repairers</u> - repair, maintain or install computers, ATMs and office machinery.	RC	7,670	466	\$25,610	\$38,310	\$37,120	PS VOC	T	Other	PA OOH (Computer, Automated Teller & Office Machine Repairers); Electronics Technicians Association
<u>Fitness Trainers</u> - instruct groups or individuals in exercise activities and the fundamentals of sports.	SRE	10,690	438	\$13,330	\$21,340	\$31,260	PS VOC	T	Other	PA OOH (Sports & Physical Training Instructors & Coaches); American Council on Exercise

Occupational Title	Interest Code	Employment Outlook		Wage Data			Training Level	Career Path Icon	Related Industry Clusters	For Further Information
		Projected 2012	Openings per Year	Entry	PA Average	U.S. Average				
<u>Non-Retail Sales Supervisors</u> - directly supervise and coordinate activities of sales workers other than retail sales workers.	ECS	16,660	411	\$38,540	\$76,390	\$72,100	WK EXP	W	Other, BFS	PA OOH (Manufacturers' & Wholesale Sales Representatives); Manufacturers' Agents National Association
<u>Hotel Desk Clerks</u> - accommodate hotel, motel and resort patrons during their stay.	CES	6,850	376	\$14,050	\$18,630	\$18,730	ST OJT	W	Other	PA OOH (Hotel Desk Clerks); American Hotel and Motel Association
<u>Food Service Managers</u> – plan and direct activities of organizations that serve food and beverages.	ECS	15,110	367	\$27,890	\$47,430	\$45,200	WK EXP	W	Other	PA OOH (Food Service & Lodging Managers); National Restaurant Association Educational Foundation
<u>Postal Mail Sorters</u> - prepare incoming and outgoing mail for distribution.	CR	10,940	319	\$26,910	\$39,880	\$40,400	ST OJT	W	Other	PA OOH (Postal Clerks & Mail Carriers); United States Postal Service
<u>Personal Service Supervisors</u> - oversee activities of personal service workers, such as flight attendants, hairdressers or caddies.	E	9,480	318	\$18,650	\$32,820	\$33,940	WK EXP	W	Other, LS	N/A
<u>Automotive Body Repairers</u> - repair and refinish automotive vehicle bodies and straighten frames.	R	11,040	300	\$21,220	\$32,470	\$37,780	LT OJT	W	Other	PA OOH (Automotive Body Repairers); Automotive Service Association
<u>Driver/Sales Workers</u> - drive vehicles within established routes or territories to sell goods.	ERS	18,160	295	\$12,530	\$23,020	\$23,810	ST OJT	W	Other, AFP	PA OOH (Truck Drivers)
<u>Fire Fighters</u> - control and extinguish fires to protect people and property. Also maintain fire equipment.	RS	5,590	208	\$31,460	\$43,690	\$39,980	LT OJT	W	Other	PA OOH (Firefighting Occupations); International Association of Firefighters
<u>Parts Salespersons</u> - sell spare or replacement parts and equipment in repair shops or parts stores.	ERC	8,790	207	\$17,110	\$26,880	\$28,510	MT OJT	W	Other	PA OOH (Retail Salespersons)
<u>Compliance Officers</u> - investigate eligibility for or conformity with laws governing contract compliance.	CE	7,290	204	\$30,690	\$49,160	\$52,580	LT OJT	W	Other	PA OOH (Inspectors and Compliance Officers)
<u>Order Clerks</u> - receive and process incoming orders for materials or services.	CES	11,710	204	\$17,970	\$27,230	\$27,030	ST OJT	W	Other	PA OOH (Order Clerks)
<u>Non-Farm Animal Caretakers</u> - feed, water, groom, exercise and care for small and large animals, fish or birds.	RS	5,550	202	\$13,290	\$18,670	\$19,620	ST OJT	W	Other	PA OOH (Veterinary Assistants & Non-farm Animal Caretakers); Humane Society of the United States
<u>Environmental Scientists</u> - research hazards that affect the environment or health of the population.	RC	1,700	55	\$34,280	\$58,480	\$56,280	BD	C	Other, BFS	PA OOH (Conservation Scientists & Foresters; Inspectors & Compliance Officers)

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Getting There

Alternative Education/Career Paths

Did you know...

more high school graduates are choosing to continue their education?

Today's high school graduates are more likely to go to college than those of the past. In 2000, 63 percent of graduating high school seniors in the United States had enrolled in college by the following fall, compared to 52 percent of the class of 1970.

Career and Technical Education

In the past, Career and Technical Schools Education (CTE) schools were considered an alternative form of education for those who were not academically inclined, and they were not expected to lead to a well-paying career.

Today, however, career and technical education has an impressive reputation with many attractive options for career seekers, including college. Here are some questions that students typically ask about CTE training:

What exactly is career and technical education?

Today, CTE training is highly specialized, technical training in a specific field, as linked to academics. The training you receive is “hands-on” and set in an environment similar to that in which you would be working in the job market. The appeal of this type of education is that it makes you employable right after you complete the training.

Why is CTE training important today?

CTE is important because there are many openings for people with this kind of training. You may be surprised to learn that nearly half of the jobs on the market today require less than a four-year college degree. Meanwhile, the costs of a college education have gone way up, making CTE training a more affordable and attractive option.

What jobs can career and technical education prepare me for?

CTE schools offer training in health care, automotive, construction, horticulture, engineering, computer technology, business and many other fields.

How do I obtain CTE training?

It's available to high school students in nearly 90 percent of all school districts in Pennsylvania. Generally, training is offered through one of the 83 CTE schools throughout the state. There are also many CTE schools that cater to specific employment fields.

How do I learn more about career and technical education?

The first step would be to talk to your school counselor or employment counselor about whether this type of education fits in with your career plans. If possible, visit a nearby CTE school and see firsthand what it offers. You can also find out more online at www.vocational-technical-schools.com or at www.pde.state.pa.us/bcte.



Pennsylvania Skills Certificate

If you pursue a career and technical education in high school, you'll graduate with a diploma and training in a specific career. That makes you a desirable job candidate. But there's still something else you can do to make yourself even more attractive to potential employers: Receive a Pennsylvania Skills Certificate in addition to your diploma. To do this, you must complete and pass a test that demonstrates skill and knowledge in your field.

This certificate serves two purposes. It rewards you for good performance in your technical studies. It is also a good tool for getting a job after high school. Employers know that a prospective employee with a Pennsylvania Skills Certificate in hand has the skills to do the job and do it well. An instructor or counselor at a CTE school can provide you with the details on achieving Pennsylvania Skills Certification.

Tech Prep

Tech Prep programs combine high school and postsecondary education to prepare students for careers in technical fields, such as engineering technology, manufacturing, information science, health care and others. Students receive education in both an academic core (math, science and communications) and in their technical field of choice. At the end of the program, students receive an associate's degree, two-year certificate or apprenticeship.

The goal of the Tech Prep program is to prepare students for the workforce while they continue academically toward earning a bachelor's degree. For more information on Tech Prep, contact the Pennsylvania Department of Education at 717-787-8804.

21st Century Apprenticeships: Connecting Education and the Workplace

One of the best ways to prepare for your career is to work as an apprentice while you're still in school. Apprenticeship programs connect career seekers looking to learn new skills with employers looking for qualified workers. As an apprentice, you'll receive paid on-the-job training and academic instruction that develops the skills needed to advance in your chosen career.

Is an apprenticeship in your future? Check out these facts:

- To participate in an apprenticeship, you must be at least 16 years old, although many programs require applicants to be 18.
- More than 1,400 apprenticeship programs are in place in the commonwealth and 15,259 Pennsylvanians served as apprentices in 2004.
- Apprentices are employees and are paid for their work. The average starting wage for Pennsylvania apprentices in 2004 was \$12.49 an hour.

If you are interested in learning more about apprenticeships, talk with your school or career counselor about how to get started. Or visit the Registered Apprenticeship Web site at **www.doleta.gov/atels_bat/**.

To find an apprenticeship in your own area, visit this site:

<http://bat.doleta.gov/bat.cfm>



Military Training and Careers in the Armed Forces



As you explore your career options, the United States Armed Forces is one alternative you may want to consider. The U.S. Military has changed dramatically over the past several decades. Today's military is more professional, more technologically advanced and offers more benefits and rewards than ever before.

Maintaining a strong national defense includes such diverse activities as commanding a tankard, running a hospital, repairing a helicopter and programming a computer.

It can simply be a means to an end: money for college or technical training and the development of life skills. Or it can be a lifelong career path with a defined purpose and many opportunities to advance and grow.

Here are some interesting facts regarding a career in the U.S. Military:

- The pay scale is competitive with many starting salaries in the corporate sector and many allowances paid out by the military are tax-exempt.
- Tuition support programs are available to those who plan to attend college.
- You must be 18 (or 17 with your parent's permission) and a U.S. citizen or legal immigrant holding permanent resident status to join the military.
- Most enlisted personnel need at least a high school diploma, while officers need a bachelor's or an advanced degree.

Before you make a decision to join, it's important to gather as much information as possible about the branch of the service you're interested in. Each one differs in specific programs, terms of duty and enlistment options. Explore Web sites like www.myfuture.com and www.todaysmilitary.com to learn more. Make certain that your military commitment is based on sound information and realistic expectations.

For more information, contact your nearest recruiter (listed in the phone book) or call one of the following toll free numbers:

Service	Toll-Free Number	Web Site
U.S. Army	800-USA-ARMY	www.goarmy.com
U.S. Navy	800-USA-NAVY	www.navy.com
U.S. Air Force	800-423-USAF	www.airforce.com
U.S. Marine Corps	800-MARINES	www.marines.com
U.S. Coast Guard	877-NOW-USCG	www.gocoastgaurd.com
Air National Guard	800-TO-GO-ANG	www.ang.af.mil
Army National Guard	800-GO-GUARD	www.1800goguard.com

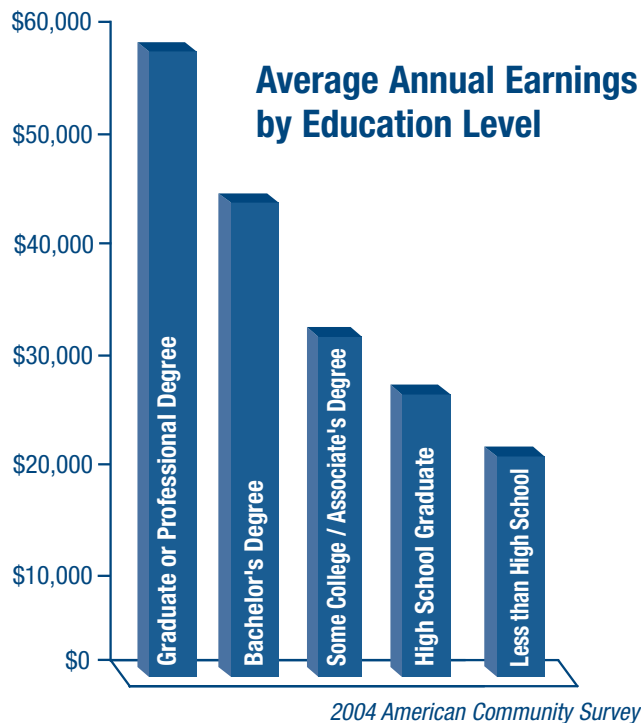
Neither the Department of the Navy nor any other component of the Department of Defense has approved, endorsed, or authorized this product [or promotion, or service, or activity].

Higher Education

A Degree of Difference

In acquiring the education you need to prepare for the workforce, getting your high school diploma is an important first step. But do you also need a college degree? Here's a pretty reliable rule of thumb: higher education leads to higher wages. Moreover, it increases your chances of obtaining a job – because employers often use education to predict the productivity of job candidates.

So the question becomes: how much education do you need? Here are some of the most common options for education beyond high school:



Short-term Training or Certification

- Requires approximately six months of study beyond high school.
- Can be obtained online or at a vocational or career school.
- Job examples include certified nursing assistants, truck drivers and child care workers.

Associate's Degree

- Requires approximately two years of study beyond high school.
- Most are obtained at technical schools and community colleges.
- Can be used as a stepping stone toward a bachelor's degree.
- Job examples include dental hygienists, paralegals and veterinary technicians.

Bachelor's Degree

- Usually requires at least four but not more than five years of study beyond high school.
- Bachelor of Arts (B.A.) follows a broader, more liberal curriculum.
- Bachelor of Science (B.S.) concentrates on math and science-related fields.
- The most common credential obtained through postsecondary education.
- A dual (second) major can enhance job marketability and may be beneficial to those who do not wish to go to graduate school.
- Job examples include special education teachers, occupational therapists and accountants.

Master's Degree

- Requires two years of course work beyond a bachelor's degree.
- Curriculum is challenging and can be highly selective.
- Many programs require a thesis, a written paper elaborating on original research for the generation of new knowledge.
- Job examples include physical therapists, school psychologists and librarians.

Doctorate Degree (Ph.D.)

- Requires at least four years of study beyond a bachelor's degree.
- Intensive academic focus and research.
- Requires the most financial and emotional investment of any degree.
- Often requires the completion of a dissertation, or book-length research paper on a specialized subject.
- Job examples include college professors, economists, and medical researchers.

Professional Degree

- Length of study varies, but typically ranges between two and four years beyond a bachelor's degree.
- Focus is placed on practical application of knowledge as opposed to academic research.
- Job examples include surgeons, lawyers and pharmacists.



The Costs of College

It will come as no surprise that education beyond high school is expensive. In fact, depending on what college or university you are considering, tuition and room and board can cost anywhere from \$6,000 to more than \$40,000 a year.

The table below shows the average costs of undergraduate education in Pennsylvania at different types of schools. These costs reflect the average combined total of tuition and room and board per year (for community colleges, the number represents the average cost of tuition only).

And don't forget all those additional costs...

When budgeting for a college education, there are many costs that tend to get overlooked. Here's a list of some of them:

- **Textbooks** – According to The Washington Post, books and supplies cost students nationwide an average of nearly \$900 – and this is expected to increase.
- **Transportation**
- **Cable TV**
- **Printer paper**
- **Laundry**
- **Basic toiletries**
- **Snack foods and drinks**
- **Social activities** – such as artistic events, athletic tickets and nights out on the town

	Cost	2005-2006
Community Colleges	Tuition	\$2,850
Private Two Year Colleges	Total	\$18,818
State Universities	Total	\$12,083
State-Related Commonwealth Universities	Total	\$17,235
Private State-Aided Institutions	Total	\$32,696
Private Colleges & Universities	Total	\$28,778
College of Technology	Total	\$10,042

Data Sources: Pennsylvania Department of Education; The Washington Post, January 23, 2006, Page A01

Financial Aid

As you can see, education after high school is quite expensive. So if you are not independently wealthy, how will you pay for college? Not to worry: You'll be glad to know that there are many financial aid options available for postsecondary education.

There are basically four types of financial aid, each differing in terms of repayment and eligibility:

Grants. Typically, grants are based on financial need and do not have to be repaid.

Scholarships. Like grants, scholarships do not have to be repaid. They can be awarded based on financial need, academic merit, or athletic merit.

Loans. Loans are a form of aid that must be repaid with interest after leaving school. The most common of these are the Perkins and Stafford loans, although private and alternative loans are also available.

Work-Study. Based on financial need, work-study programs provide employment opportunities to students both on and off campus.

For more information on how to apply for financial aid, visit the Pennsylvania Higher Education Assistance Agency Web site at **www.pheaa.org**.



Standardized Testing (College Entrance Exams)

SAT and ACT. Those are two acronyms that inspire dread in the hearts of high school students everywhere. That's understandable; after all, these tests are very important to students who wish to further their education beyond high school. Colleges take them very seriously when determining admission, financial aid and even acceptance into some specific areas of study.

But being overly anxious or nervous can affect your performance on SATs and ACTs. So here are some tips to ease your anxiety and make sure you're prepared:

- **Know the instructions and format before going in.** This helps prevent the loss of time reading and rereading the instructions when you could be answering questions or rechecking your answers.
- **Take a pretest,** either on paper or on a computer. This will familiarize you with both the format and the types of questions that will be asked.
- **Take a preparatory course.** These test prep courses generally have a fee to enroll, but they are useful in learning tips and techniques for improving your score.
- **Get a good night's sleep the night before.**
- **Have breakfast the morning of the test.**
- **Take a snack to eat during breaks,** preferably something that will give you an energy boost.
- **Get the easy questions out of the way.** You only have a limited amount of time for the test. If you get hung up on a particular question, mark it so you can come back to it later and move on.
- **GO BACK AND CHECK YOUR WORK.** It's easy to skip a question in the book and not on the answer sheet, which means you've given the right answer to the wrong questions all the way down the page.

Which test will you take?

The two major college entrance exams are the SAT Reasoning Test (formerly the Scholastic Aptitude Test) and the ACT (American College Test). This chart shows the differences between the two. Check with the colleges to which you are applying to see which test they prefer for admissions purposes. The rule of thumb is that whichever exam you take, you should take it twice.

Comparison of SAT and the ACT		
ACT		SAT
The ACT tests your skills in English, math, reading and science and has included an essay portion since 2005. Generally, the ACT is considered a test of your academic preparedness in these areas.	What do the tests focus on?	The SAT tests your verbal and mathematical reasoning skills, and has included an essay portion since 2005. Generally, the SAT is considered a test of your critical thinking skills rather than knowledge in particular disciplines.
The ACT score uses a composite score, based on an average of the various sections of the test, with the essay portion factored into the English score. The composite score ranges from 1 to 36, with the average being 20 to 21.	What are the ranges of scores on the tests?	Each of the 3 sections of the SAT has a score range from 200 to 800, making the total range 600 to 2400. Prior to the addition of the essay portion, the average SAT score in 2005 was 1028 out of 1600. (Data since the essay was added in 2005 are unavailable as of yet.)
There is no wrong-answer penalty in the ACT. If you don't know an answer and can't eliminate possibilities, you should simply try your best guess.	Is there a penalty for wrong answers?	The SAT penalizes test-takers for incorrect answers. If you don't know the answer and can't eliminate a few options, it's probably best not to guess.
The ACT is typically more prevalent in the South and Midwest, but check with each school to be sure.	Where is the test commonly used?	The SAT is more common in the Northeast and West Coast. But, again, check with the schools in question.
www.act.org	Web sites	www.collegeboard.com



To-Do List for High School Students

If you're in your junior or senior year in high school, you have a lot to think about:

What am I going to do after graduation?

Am I headed for college, vocational training, or right into the workforce?

How am I going to navigate the path that I choose?

This section of the Career Guide offers you some help by giving you a general To-Do list to follow. When dealing with specific matters, such as a school's application or financial aid deadlines, pay particular attention to their requirements, rather than these suggestions. Consider this list more of a guide than actual rules.

The To-Do list is divided into two sections:

- A brief overview of what you should be doing prior to your senior year to prepare yourself for life after high school.
- A month-by-month planner that is divided into three categories – for college-bound students, for students seeking other post-high school training, and for students seeking to enter the workforce immediately.

1. What to do before your senior year begins:

- Take a skills or interest test to learn a bit about yourself. What are you good at? What do you enjoy doing?
- When you find a career path that might interest you, learn more about it. You might find it's exactly what you want to do, or find that the day-to-day work would bore you.
- Make sure you take classes that fit your career goals.
- Take the PSAT, which is good practice for the SAT I. A good score on the PSAT could qualify you for a National Merit Scholarship.
- Be sure to get involved in part-time or volunteer work and extra-curricular activities. These sorts of things can give you valuable experience in learning about yourself. They also look good on a résumé.
- Consider taking the Armed Forces Vocational Aptitude Battery (ASVAB) test, especially if you plan on enlisting in the military after high school.
- Attend college fairs, career fairs and job fairs held at or near your school. These are great ways to gain information about prospective careers, as well as network with people in the field.

- Near the end of your junior year, **review your transcript to make sure you will complete the classes you need to graduate!**
- Finally, during the summer between your junior and senior years, if you plan on going to college, begin to narrow down your list of choices. This will keep your application fees to a minimum down the road. Also, if you are considering a school out of the area, the summer might be a good time to make a campus visit.

Accomplishing these things before your senior year will give you a sense of direction and purpose as you complete your high school education. Now, here's a look at what you should do during your senior year, based on your chosen career path...

2. Month-by-month planner

KEY:

C = Four-year college bound

T = Other postsecondary training

W = Going right into the workforce

September

C

Get applications and financial aid information from the schools you are interested in attending. If you're considering early admissions, be sure to find out when each college's early admissions deadline is. When applying to colleges, find out whether those schools prefer the ACT or the SAT. Now is also the time to begin asking if teachers, bosses, or other people would be willing to write letters of recommendation for you.

T

Figure out what you want to be doing a year from now, and plan to get training in that field. If possible, get a part-time job or volunteer in that field.

W

Take an interests or skills test (similar to the one we provide in this Guide) and talk to a career counselor to get an idea of what kind of work you want to do.

October

C

Start visiting colleges. Many of them have college fairs, which are a good opportunity to get more information and any forms you might still need. Take the ACT if any schools on your list require it.

T

Figure out how post-high school training fits in with your career plans (that is, what kinds of training will you need to do what you want to do and how long will it take?)

W

Make a list of your strengths, experiences and accomplishments. Then list any jobs you might have had in the past. Keep in mind the types of jobs you know you wouldn't want to do, so that you don't waste time exploring those careers.

November

C

Begin working on your college essays or writing samples – and be sure to have someone proofread them for you. Take the SAT if any schools on your list require it.

T

Get applications and financial aid information from the schools you are interested in attending.

W

Take the list of strengths, experiences and accomplishments on which you've been working and begin assembling your résumé.

December

C

Pick up a FAFSA (Free Application for Federal Student Aid) form. You should also check to make sure your SAT or ACT scores have gotten to your schools of choice.

T

Begin visiting the schools you're interested in.

W

The Christmas break is a good time to put your résumé to use by getting a part-time job, hopefully in a field that interests you.

January

C

Work on your FAFSA forms. (FYI, FAFSA forms require a good deal of tax-related information, so you'll need your parents to gather that well before April 15th.) Also, begin a serious hunt for outside scholarships.

T

Make a list of deadlines, begin applying to schools, and start assembling your writing samples or portfolio (whichever the case may be).

W

Work on planning a budget for yourself. Figure out what your fixed expenses are likely to be, and don't forget to budget for incidental expenses that crop up from time to time. (Actually, this is good practice regardless of your future plans.)

February

C

If you haven't already done so, complete the FAFSA forms and send them to your schools of choice. Make a list for yourself ranking your college choices.

T

Continue the application process, keeping any deadlines in mind.

W

Work on your résumé again, including your most recent part-time employment. Now, however, you're about to step up to full-time employment, so think about what it is you want your résumé to say about you, and revise it again.

March

C

Watch the mail: You should be hearing back from schools soon. You should also be receiving your Student Aid Report (SAR) in response to any financial aid applications. (The SAR can also be emailed if you list an e-mail address on your FAFSA, so watch for it there as well.)

T

Finish any applications to schools with late deadlines, and watch your mail for replies from the schools to which you've applied.

W

Time to start learning more about potential employers. Research companies that are in your field to see what kinds of jobs are available and decide if they are a right fit for you. Not only will you learn where to apply, you'll have knowledge that's useful when you're interviewing as well.

April

C

Wait until you've heard from your preferred school before you decline any offers. Also, make sure to meet any other deadlines, such as for housing or more financial aid.

T

Continue watching the mail for acceptance letters or financial aid offers from schools.

W

Talk to the people you want to use as references. (Get their permission before listing them!) Teachers, coaches, counselors and employers are all good choices. Be sure to get a phone number where they can be reached in the summer.

May

C

Make your final college choice. Decline any offers that other colleges have made to you so the spot being held for you can be given to the next person in line. Take any Advanced Placement (AP) exams.

T

Be prepared to begin any training or courses that might start before the usual fall semester begins.

W

Prepare to get a job. Write cover letters and practice interviewing – then get out there. A final piece of advice: Don't just jump on any old job that comes along. Be sure to get something that fits your needs as well as your skills.

Part 3:

The Destination


Setting Your Sights on a Fulfilling Career



Job Resources

Who says getting a **JOB**
has to be **WORK?**

PA CareerLink is your one-stop resource
that can connect you with the help you
need to find that perfect job.



To find a PA CareerLink near you, visit www.pacareerlink.state.pa.us
and click on Job Seeker Services

Pennsylvania
CareerLink

Pennsylvania CareerLink

With more than 80 local, professionally-staffed locations throughout Pennsylvania AND online access 24 hours a day, PA CareerLink is there to help you navigate the road to career success.

We work hard to ensure that Pennsylvania employers come to PA CareerLink each month to find qualified employees... looking for you!

From pharmaceutical companies to hospitals... financial management institutions to software corporations... local schools to manufacturing firms – PA CareerLink will connect you with some of the best job opportunities in the state.

Need help getting started? PA CareerLink's got that covered too!

The PA CareerLink staff can help you:

- Assess your skills
- Plan a career path that's right for you
- Build your résumé and polish your interviewing skills
- Identify networking opportunities and job fairs in your area
- Locate training programs that will help you gain new job skills
- Connect you with financial aid options to further your education
- Find and get the right job for you!

You can also visit PA CareerLink online at www.pacareerlink.state.pa.us to:

- Develop an online résumé
- Manage your job search by storing multiple résumés and tracking positions you've applied for
- Access information regarding statewide training programs and labor statistics
- View tens of thousands of job openings
- Research a company's business profile
- Apply online for jobs that peak your interest

"I found the [Pennsylvania] CareerLink service to be a valuable tool in my job hunt. The staff was helpful and provided some great resources."

*— Jill Konieczko,
Pennsylvania resident and job seeker*

"My management team and I are enthusiastic fans of the [Pennsylvania] CareerLink. Over the last two years we have hired a number of quality, new agents directly as a result of the program... I highly recommend use of the [Pennsylvania CareerLink] system for all employers to help them meet their staffing needs."

*— Russell DeJulio,
General Manager, American General Financial Group*

Did you know...

the future looks promising?

Total employment is projected to increase in Pennsylvania by about 400,000 jobs (or 6.4 percent) over the next 10 years.

Student Organizations

There's a great way to develop workplace skills while you're still in school: Join a career or technical student organization. As a member, you'll gain experience and knowledge in your desired field that goes beyond the classroom. To the right is a list and brief description of eight student career organizations in Pennsylvania. To learn more, contact your school counselor or check the Web sites listed.

Did you know...

opportunity and career choice don't always connect?

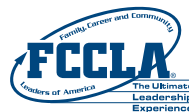
According to a Job Shadow/Harris Interactive Poll, more than half (51%) of teens have no interest in pursuing the top five fastest growing career fields. Yet these are the careers expected to have critical workforce needs in this decade and beyond.



Distributive Education Clubs of America (DECA): DECA is an organization designed to enhance student skills in the fields of marketing, management, distribution and entrepreneurship. Membership is open to any student enrolled in a business or management course. www.padeca.org



Future Business Leaders of America (FBLA): FBLA is an organization dedicated to the development of leadership abilities in preparation for entry into business-related occupations. In the 2004-05 school year, more than 12,800 Pennsylvania students were members. www.pafbla.org



Future Career and Community Leaders of America (FCCLA): FCCLA promotes personal development through education in family and consumer sciences to encourage family unity, democracy, harmony and social responsibility. FCCLA boasts a membership of more than 2,000 students in Pennsylvania. www.pafccla.org



Pennsylvania FFA Association: Officially founded in 1928, the FFA exists to educate both members and the public at large about the importance of agriculture in the future of the world in a positive manner. www.paffa.state.pa.us



Health Occupations Students of America (HOSA): HOSA was created to improve the quality of health care by providing opportunities for education in leadership and health care-related skills and knowledge. www.pahosa.org



Pennsylvania Young Farmers Association (PYFA): PYFA educates students by promoting the environmentally appropriate production, marketing and processing of food, feed and fiber. www.payoungfarmers.com



SkillsUSA-VICA: Skills-USA was created to build self-confidence, ethics and a positive work ethic within the free enterprise system for students in skilled, technical or health-related fields. The Pennsylvania chapters claim a total membership near 20,000. <http://cte.ed.psu.edu/paskills>

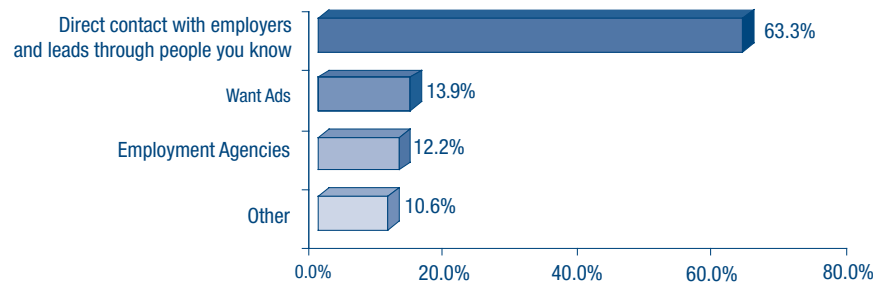


Technology Student Association (TSA): Created in 1978 and renamed in 1988, the TSA encourages students to develop leadership and technology competencies and then compete against students from other schools and states. www.patsa.org

Networking

Less than 20 percent of all job openings are ever advertised. Most jobs are filled through personal referrals, direct contact with employers, or employment agencies.

How most jobs are found



Clearly, this chart shows the importance of “networking” – meeting and talking to people who can help you learn about job openings and opportunities. The key is to make as many contacts as possible. For instance:

- Friends, relatives and teachers might know of employers looking for your particular skills. Take advantage of your “connections” and contact those employers. Even if you don’t get a job with them now, they might remember you later.
- Make an effort to learn about local employers. Find out who’s hiring... what type of work they do... and who to contact about job openings.

Career Fairs

Attending a career fair is a particularly effective way to network. You’ll have the opportunity to meet with representatives from multiple industries, and to submit your résumé to several potential employers.

Keep these tips in mind when attending career fairs:

- Go prepared! Dress appropriately, have plenty of copies of your résumé, carry a portfolio to hold any materials you might pick up, and take a pen and some paper to write down contact information.
- Keep an open mind. Talk with employers in many different fields. You may find that your dream job is something you never considered before.
- Get there early. Take the time to learn the layout of the fair, so you know which employers are located where. Also, by arriving early, at a time when the representative is likely to be less busy, you might get a chance to have an extended conversation.
- Introduce yourself and strive to make a good impression. Think of each interaction with a representative as a mini-interview, and be prepared to answer any questions about yourself.
- Ask for the representative’s card. This gives you a contact name and number to use when job hunting – or simply to follow up for more information after the career fair.
- Send a thank you note. In addition to displaying good business etiquette, sending a thank you note to the representative will further the good impression you made at the career fair and keep you in the mind of a prospective employer.



Obtaining and Retaining a Job

Your Résumé

Making a Great First Impression

Think of your résumé as your personal sales brochure. It establishes a first impression of you – and plays a pivotal role in whether or not you will get an interview.

But a résumé is more than a summary of your skills, experience and education; it is an advertisement of your best self. A prospective employer wants to know where you have worked and what skills you can bring to the workplace. So when touting your accomplishments, be specific. Instead of stating “Good decision maker,” give an example of where a decision you made brought about significant results. This could lead to a productive discussion during your interview.

Developing Your Résumé

Résumés can vary in appearance, but most consist of the following components:

- ❑ **Personal Data:** Your name, telephone number, address and e-mail address.
- ❑ **Education:** List educational levels in reverse chronological order, most recent first. Include details relevant to the job, such as courses or special projects.
- ❑ **Skills and Qualifications:** Give specific examples that demonstrate the personal skills that you feel the employer would deem valuable. Also, list any qualifications or certifications you possess that are required for the job.
- ❑ **Work Experience:** Summarize your work experience, focusing on your tasks and accomplishments. Include relevant non-paid work experience.
- ❑ **Activities:** List those activities most relevant to your occupational goal. Include school, community and professional activities.

Research suggests that your résumé has less than 20 seconds to make the right impression. Take time to make it eye-catching and easy to read. To create an impressive résumé, it should be:

- ❑ **Well written:** No spelling or grammatical mistakes. Keep it clear and concise. Have someone proofread your résumé before you give it to an employer.
- ❑ **Attractive:** It should be typed and professional in appearance. An employer should be able to glance over the résumé and read the main points.
- ❑ **Concise:** Your résumé should be as long as it has to be, and no longer. For a student, one page is usually sufficient.
- ❑ **Relevant:** Include only information having to do with the job you are seeking or your career goals.
- ❑ **Personalized:** Use the style and format that best reflects your needs and accomplishments.
- ❑ **Appropriate:** Information and format must conform to employer expectations. An artist, for example may appropriately include graphics, while a banker should not.

Keith Gardner
108 Huntington Park Dr., Apt. 824
Boalsburg, Pennsylvania 16827
555-555-5555
E-mail: kgardner@paworkforce.net

June 1, 2006

Mr. Mitch Shaver
Executive Chef
Toftrees Resort
State College, PA 16803

Dear Chef Shaver:

I am looking for a restaurant where my talents are showcased and my creative presentations exhibited. Toftrees Resort is the perfect place for me to use my skills in supervising, requisitioning, scheduling, menu planning and expediting.

I have a bachelor's degree in Hotel/Restaurant Management and have recently completed a certificate program with the Culinary Institute of America. My career in the hospitality industry started at age fifteen, washing dishes in a neighborhood diner. The past 12 years have given me experience in all spectrums of the industry, from the front of the house to the kitchen. My passion for the industry truly came about in college when I first stepped onto the sauté line at The Worldly Tavern. I stayed there for five years learning all aspects of the kitchen under the supervision of Executive Chef Jaé Cork. Teamwork and communication are vital in the kitchen and this is stressed to all employees I supervise.

I would like to request an interview and a chance to see your kitchen and restaurant. I will be calling you at the end of the week during the early afternoon to see when your schedule might allow time for a meeting. Thank you for your consideration.

Sincerely,

Keith Gardner

Keith Gardner

Convey Your Abilities in Your Cover Letter

A cover letter should accompany every résumé you send. Cover letters can be used to inquire about job openings or apply for known vacancies. The purpose of a cover letter is to capture the employer's attention so that they will read the résumé and grant you an interview.

A cover letter should be written to a specific prospect and not mass-produced. Address it to a particular person and, if possible, mention a specific job within the company. You can generally achieve your objective with three paragraphs:

The Opening – State the position for which you are applying and how you learned about the job opening.

The Body – Highlight your main qualifications: the skills and experiences that relate to the job. Give examples that highlight your talents. Refer to, but do not repeat, your résumé.

The Closing – Request an interview; suggest a time for your follow-up call or contact. Never assume the employer will call you.

Tips for a Convincing Cover Letter

- ☐ Address the letter to a specific person, not "Dear Sir" or "Dear Personnel Director." Make an extra phone call if necessary.
- ☐ State what you can accomplish for the company, not how the company will help your career.
- ☐ Don't overuse "I" throughout the letter.
- ☐ Print on paper matching your résumé. Your public library has resources you can use to create professional-looking documents.
- ☐ Use correct spelling, grammar and punctuation.
- ☐ Be clear and brief, but give enough information to interest the employer in your qualifications for the job.
- ☐ Write a separate letter for each job opening.
- ☐ Sign the letter boldly. A signature in blue ink shows the recipient it is not simply a photocopy.



Chronological Résumé

This résumé is in the most common and accepted format. It lists education, employment and employment-related experiences, starting with the present and going backward in time. If your employment history is brief, or you are re-entering the workforce, focus on your education and the job you've held where you've had the most responsibility. To the left is an example of a chronological résumé.

Jo-Anne McKinley
34 Delancey Court
McKeesport, Pennsylvania 15134
555-555-5555
E-mail: jamck@paworkforce.net

Education

A.S. Health Information Technology, 2001
McKeesport Community College, McKeesport, Pennsylvania

Skills/Qualifications

- Knowledge of scientific research methodology. Independent study projects involving blood tests, analysis, and computer sampling.
- Operation of hematology analyzer, lancets, centrifuge, etc.
- Working knowledge of Excel, Word, DMARD, and HIPAAxchange.
- Excellent initiative and problem solving skills.

Work Experience

2000 – Present McKeesport Community College, McKeesport, Pennsylvania
Teaching Assistant

- Supervised the performance of 35 laboratory students conducting experiments.
- Prepared laboratory materials at the request of instructors.
- Evaluated and graded students performances.

1999 – 2000 Hershey Medical Center, Hershey, Pennsylvania
Medical Records Assistant

- Recorded laboratory data on patient charts
- Used HIPAAxchange to look for patient allergies and medicinal conflicts.
- Processed patient records at the rate of 20 per hour.
- Received and responded to inquiries from medical personnel

Activities

- Vice President of Science Club, McKeesport Community College
- Member of Health Occupations Students of America (HOSA)

Neil Lawler
McKeesport, Pennsylvania 15134
E-mail: neil_lawler@paworkforce.net

Education

A.S. Business Administration
McKeesport Community College, McKeesport, Pennsylvania
Continuing education courses through area technical centers in:
* Windows, Word, Excel, Access, and Lotus

Skills/Qualifications

- * Competency in clerical procedures.
- * Familiar with billing, filing, faxing, and shipping methods.

Work Experience

Counter Sales - Retail Goods Company

- * Awarded employee of the month award for outstanding service and attendance.
- * Handled a variety of office duties including greeting public, answering phones, and data entry.

Office Assistant - Rental Company of wholesale consumer goods

- * Ordered, stocked, and distributed office supplies for entire company.
- * Assisted controller in general ledger, payroll, and accounts receivable/payable.
- * Distributed accounting reports to all department managers per company requirements.

Cashier, Wait Staff - Local area restaurant & grill

- * Handled food service customers for four years with speed and accuracy.

Activities

- * Tour guide in college as a member of the Hospitality Committee.

References available upon request for an interview.

Online Résumé

This type of résumé is written with certain restraints to maintain privacy and confidentiality. It requires a different format that lacks the visual appeal of the general résumé. This is done so that the information will be readable on all software programs.

Common Complaints About Résumés

Listing objectives or meaningless introductions: Vague objectives and overly general introductions don't tell the reader anything of value, wasting their time and valuable résumé space. Tell them who you are and what you do with a single, clear statement.

Written either in the first or third person: Using the first- or third-person voice risks turning your résumé into a narrative – from a short summary of your qualifications into a second, redundant cover letter.

Important information is too hard to find or absent: Many employers see hundreds of applications a day and simply skim résumés. Buried information is unseen information which might have gotten you an interview. If some piece of information about you is important, make sure it's easily seen.

Too long: A résumé is not a second cover letter. You want to concisely state your qualifications for the job, your work history and your accomplishments. But don't overdo it. The ability to be concise is looked upon favorably by most employers.

Personal information not relevant to the job: There are times, such as when your hobby is related to the job you are seeking, that including personal information can help you. Most times, however, don't include information that can be wrongly interpreted or open the door to some type of prejudice on the part of the résumé reviewer.

Too duty oriented with accomplishments not highlighted: A list of duties from a previous job just reads like a job description. Instead, briefly describe some of your accomplishments, which give the résumé a personal flavor while highlighting your talents and initiative.

Unprofessional e-mail addresses: The résumé is your first contact with the employer in the hiring process, so try to make a good impression. An e-mail address that is the same as your name will do just that. "HotPants021" won't.

Gaps in employment: In the interest of brevity, don't explain gaps in your employment in the résumé. Leave that for the cover letter, but be ready to again explain the gaps in your interview.



Did you know...

employers repeatedly state that it's hard to find good help these days?

An estimated 85 percent of jobs require the knowledge of applied mathematics, reading for information and locating information.

Posting Your Résumé Online

Posting résumés and conducting job searches online is becoming more and more popular. While this makes the process of getting your name out there much easier, it does not increase your chances of getting a job. Companies receive hundreds of applicants for each job listing through online forums. If a résumé does not stand out, it may be immediately discarded. When posting online, you have a much better chance of successfully obtaining a job if you read the job description very carefully and then tailor your résumé to it. Putting hours of effort into a few job postings can be more effective than putting minimal effort into hundreds.

Here are a few tips and precautions for posting your résumé online:

Beware of Formatting Requirements

- ❑ Convert your résumé to plain text by saving it as “plain text” or “text only.”
- ❑ Carefully proofread after converting; some errors may have occurred in the process.
- ❑ Replace bullets with asterisks (*) or another symbol.
- ❑ Do not use tab or try to center the text. Left-justify the entire résumé.
- ❑ Do not try to control the length of lines by pressing enter/return. It may appear differently on the employer’s computer than it does on yours.

Use Caution When Providing Personal Information

- ❑ Do not list your phone number or your home address; the city name should be enough.
- ❑ Do not list your references; say that you can provide them upon request for an interview.
- ❑ Remove dates and specific company names. Use a general description of the company. (Instead of “IBM,” for example, use “a multinational information technology company.”)
- ❑ Create a disposable e-mail address that can be discontinued after obtaining the job. This protects you and might be more professional than your current e-mail address.

Don't Let Your Résumé Sit

- ❑ Résumés are normally arranged online by date of submission, much like job postings. If your résumé is good, but months old, an employer might think you are no longer available to hire.
- ❑ Revise your résumé every two weeks; this keeps you near the top of the list. If the résumé hasn’t caught someone’s eye, making improvements might be necessary.
- ❑ If you have no results after a few months, remove your résumé and try another Web site.
- ❑ Remove all of your résumé postings after obtaining a job.

For more information about résumé and cover letters, check your local library or bookstore. The Internet can also be a valuable resource for résumé and cover letter preparation. You might find the following sources useful:

“Résumés for Dummies,” by Joyce Lain Kennedy

“Résumé Writing Made Easy,” by Lola M. Coxford

“Résumés That Knock ‘Em Dead,” by Martin Yate

Pennsylvania CareerLink – www.pacareerlink.state.pa.us

The Riley Guide: Résumés & Cover Letters – www.rileyguide.com

Jobweb – www.jobweb.com

Rockport Institute – www.rockportinstitute.com/resumes.html

Employment 360 – www.employment360.com/resume-writing-tip.html



The Job Application

Creating a Good Image

In addition to a résumé, many employers require that you complete and sign a job application. The suggestions below will help you complete a job application and make a good impression with a prospective employer.

Develop a Personal Fact Sheet Containing

- ☐ your Social Security number
- ☐ names, addresses and telephone numbers of your spouse and/or close family members
- ☐ schools attended, addresses, and dates attended
- ☐ names, addresses and telephone numbers of references
- ☐ military experience, dates served, branch of military, relevant training, and discharge type
- ☐ past employment, dates employed, salary history and reason for leaving
- ☐ any other information you feel is relevant to the application

Prepare in Advance

- ☐ Know the deadline for applying and where to deliver your application.
- ☐ Read the entire application before starting to write.
- ☐ Answer all questions as honestly and accurately as possible. Some companies will terminate individuals on the basis of a dishonest application.
- ☐ Use a pen unless a pencil is required.
- ☐ Print all information legibly or type the form if possible.
- ☐ Be sure all spelling is correct.
- ☐ Emphasize your positive education, work and military experience.
- ☐ Focus on volunteer work, hobbies or training if they are job related and you have little work experience.
- ☐ Answer all questions. If a question does not apply to your background, then write "N/A," or "Not Applicable."

- ☐ Have your résumé available in case you need it for information or to submit with your application.
- ☐ Have copies of transcripts, letters of recommendation and other documents ready to attach to your application form.
- ☐ Account for all gaps in your work history by stating your major activity during those times such as "job hunting," or "caring for a parent."
- ☐ When asked for salary desired write "negotiable," "open," or give a salary range.
- ☐ Use "will discuss" or "will discuss in interview" rather than list potentially negative or damaging factors such as a felony conviction, health problem/disability, or involuntary termination from a job
- ☐ Keep a copy of your completed application so you can review it before your interview.

ABC Bubblegum Company - Employment Application Division of Human Resources, 700 Bubblegum Lane, Pittsburgh, PA 15222			
PLEASE NOTE: Complete all parts of the application. If your application is incomplete, or does not clearly show the experience and/or training required, your application may not be accepted. If you have no information to enter in a section, please write N/A.			
Announcement Number A-076	Position Title (Job for which you are applying) Newspaper Technician		
Name (First, Middle, Last) Jeff Leister		Social Security Number 000-00-0000	
Training Address 844 Safety Avenue		City, State, and Zip Code Allegheny, PA 15106	
Home Phone 000-000-0000		Message Phone N/A	
E-mail Address jeff@123.com		May we use e-mail to contact you? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Additional Information			
Have you been an employee of ABC Bubblegum in the past? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
I certify that I am in compliance with the provisions of the Selective Service Act (Draft Registration). ** Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
I certify that I am a U.S. citizen, permanent resident, or a foreign national with authorization to work in the United States. ** Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Have you ever been convicted of, or entered a plea of guilty, no contest, or had a withheld judgment to a felony? ** Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, please explain:			
** These questions must be answered in order to be considered for employment.			
Education (Schools attended after High School or special training received)			
School Allegheny Community College	From 09/1999	To 06/2001	Did you graduate? Yes
Location Allegheny, PA	Type of degree or diploma A.S. Business Administration		
School	From	To	Did you graduate?
Location	Type of degree or diploma		
Social Security Number 000-00-0000			
Work History			
From 0000	To Present	Hrs/Week 40	Employer ABC Bubblegum
Phone 000-000-0000	Supervisor John Doe	May we contact this employer? Yes <input type="checkbox"/> No <input type="checkbox"/>	
In business			
From 1999	To 2000	Hrs/Week 40	Employer Johnson's Retail
Phone 000-000-0000	Supervisor John Smith	May we contact this employer? Yes <input type="checkbox"/> No <input type="checkbox"/>	
In attending school			
From 1999	To 1999	Hrs/Week 40	Employer University of Pittsburgh
Phone 000-000-0000	Supervisor Joe Doe	May we contact this employer? Yes <input type="checkbox"/> No <input type="checkbox"/>	
How did you find out about this position?			
<input type="checkbox"/> ABC website <input type="checkbox"/> Bubblegum News <input type="checkbox"/> Job Service <input type="checkbox"/> <input type="checkbox"/> Newspaper Ad <input type="checkbox"/> Other Internet Source <input type="checkbox"/> Prof. Organization website <input type="checkbox"/> Radio/TV Ad <input type="checkbox"/> <input type="checkbox"/> Other <input type="checkbox"/> University/College <input type="checkbox"/> None of the above <input type="checkbox"/>			
Job Type/Shift			
Full Time <input type="checkbox"/>	Permanent <input checked="" type="checkbox"/>	Temporary <input type="checkbox"/>	6 Month <input type="checkbox"/>
Seasonal <input type="checkbox"/>	Limited Service <input type="checkbox"/>	Shift <input type="checkbox"/>	Night <input type="checkbox"/>
Date			
I certify that all answers and statements on this application are true and complete to the best of my knowledge. I understand that should an investigation disclose untruthful or misleading answers, my application may be rejected, my name removed from consideration, or my employment with ABC Bubblegum Company terminated.			

The Interview

OK, you've landed a job interview. Now it's important to make the most of the opportunity. The best way to do that is to be prepared. Here are some suggestions for what to do between the time an interview is scheduled and when it actually occurs:

- ***Research the company and industry.***

Make sure you know some facts about the company's history, what products or services they offer and the industry they serve.

- ***Memorize a one- to two-minute commercial about yourself.***

Be ready to sell yourself with a summary of your education, achievements, skills and goals. It should sound natural, not rehearsed.

- ***Be prepared for "dangerous" questions.***

Know in advance how you'll answer questions about lack of experience, job-hopping history and gaps in employment.

- ***Practice answers to anticipated questions.***

Almost all questions fall into one of the following seven categories:

- 1. Are you trustworthy?**

Key Words: personal qualities; "who are you"

- 2. Can you do the job?**

Key Words: skills, abilities, strengths, situation

- 3. Will you really work at the job?**

Key Words: initiative, attitude

- 4. Will you fit in?**

Key Words: relations, co-workers, boss, customers

- 5. Will you leave soon?**

Key Words: future, plans, goals, objectives

- 6. Are you safe?**

Key Words: conflict, stress

- 7. Can I afford you?**

Key Words: benefits, salary, over time, compensation



Do's and Don'ts: Important Interview Behavior



DO:

- ☐ Go alone.
- ☐ Arrive a little early.
- ☐ Be clean and well groomed.
- ☐ Address the interviewer by name.
- ☐ Smile and shake hands firmly.
- ☐ Listen carefully and be interested.
- ☐ Maintain good eye contact.
- ☐ Take time to think about your answers to interview questions.
- ☐ Speak clearly and use proper grammar.
- ☐ Ask for clarification if you do not understand a question.
- ☐ Be positive.
- ☐ Stress your qualifications for the job.
- ☐ Express your readiness to undertake the job duties.
- ☐ Ask when a hiring decision will be made.
- ☐ Thank the interviewer(s) for their time.

DON'T:

- ☐ Speak too fast.
- ☐ Interrupt the interviewer.
- ☐ Fold your arms.
- ☐ Sit with your arms or legs far apart.
- ☐ Smoke or chew anything, even if invited to do so.
- ☐ Say, "I'll take anything."
- ☐ Fiddle with pens, paper or desk items.
- ☐ Ask about salary.
- ☐ Criticize your former employers or teachers.
- ☐ Discuss personal or financial problems.
- ☐ Provide information that is not true.
- ☐ Beg for the job or hang around after the interview.
- ☐ Sit down until you are asked.

After the Interview

John P. Smith
55 Maple Lane
Pittsburgh, PA 15112
555-555-5555
E-mail: jsmith294@paworkforce.net

June 10, 2006

Mr. Paul Johnson
ABC Corp.
7836 Central Ave.
Pittsburgh, PA 15245

Dear Mr. Johnson:

Thank you for taking the time out of your schedule to meet with me today. I was impressed with the efficiency of your company and your genuine interest in acquainting me with your staff and company goals.

I found your company's objectives intriguing and exciting. My award winning sales performance, with a proven track record of business development, seems to be something that would be valuable to your company and its goals. As I mentioned, I am someone who enjoys working with people and am known for my personalized service and friendly disposition. I feel these qualities are important to solid relationships in sales and business.

I am very interested in the position and feel that my skills and experience can help ABC meet the goals you described. If you have any additional questions, please feel free to contact me. I can be available for additional interviewing at your convenience. Thank you again for your time and consideration.

Sincerely,

John P. Smith

John P. Smith

Remember that you're in competition with others for job openings. What you do after an interview may decide who ultimately gets the job. To separate yourself from other candidates, take the time to write a brief follow-up letter to each person who interviewed you. This is one more chance to get your name in front of the interviewer(s) before a hiring decision is made. Here are some tips for writing an effective follow-up letter, along with an example:

- ☐ Write and send it within 24 hours after the interview.
- ☐ Mention the day of your interview and the position for which you interviewed.
- ☐ Thank the interviewer(s) for their time.
- ☐ Reaffirm your interest in the position.
- ☐ Review points made during the interview.
- ☐ Highlight any skills or accomplishments not discussed during the interview.
- ☐ State your availability for future interviews.



Criminal Records and Substance Abuse

Sometimes the mistakes we make when we're young end up staying with us for the rest of our lives. Criminal records and substance abuse problems, however, don't have to be the end of the world. Knowing how to deal with these problems in a mature fashion with employers can lessen their impact.

Criminal Records: Having a criminal record will influence the types of jobs you're able to obtain. So you have to be realistic in your job expectations. Keep in mind that the seriousness of the offense and the passage of time could make a difference to the prospective employer.

As in most things, honesty is the best policy. If you have a criminal record, don't lie about it on an application. That will get you fired and, even worse, could be punishable by law. It is much better to tell your prospective employer about your past rather than taking this risk.

Before hiring you, an employer must feel that he or she can trust you in his or her place of business. A criminal conviction can be a red flag to them. Try to offset that with positive references from people whose trust you have gained. A good reference from a parole officer, former employer, or community leader can go a long way to diminishing the sting of a criminal record when seeking employment.

Substance Abuse: No doubt, you've heard this said countless times: engaging in drug and alcohol abuse is dangerous behavior. Substance abuse can have an adverse effect on your career plans. Increasingly, employers are conducting drug tests on employees or prospective employees. The U.S. military has a zero-tolerance drug policy; the federal government allows drug testing at all levels. Screenings may take the form of polygraph (lie detector) and tests of the blood, urine, or hair. Many employers will dismiss employees or reject applicants on the basis of a positive test.

Drug and alcohol abuse will also affect your work life. Drugs and alcohol diminish your physical and mental health, making you an overall liability to the company.

Here are some suggestions we encourage you to take to heart:

- ❑ DON'T USE DRUGS.
- ❑ Let your employer or prospective employer know about any prescriptions you might be taking.
- ❑ Know what the company policy is on drug testing.
- ❑ Understand that refusing a drug test might be grounds for disciplinary action (including dismissal), depending on the company policy.
- ❑ False positives do occur. Over-the-counter drugs and some foods (poppy seeds are notorious) can cause a positive drug test despite the taker not being a drug user. If this happens, discuss re-testing with your employer at once.
- ❑ If you do have a substance abuse problem, get help. Understand that your life is at stake. Many employers, on the basis of the voluntary admission of a drug problem, will grant time off for employees to get clean. Even if they do fire you for using, know that your life and health are more important than any job.

Keeping your Job: Professional Behavior at Work

You've been hired! That's great news. But it's important to understand that making a good impression doesn't end with the interview. Once hired, many people act in an unprofessional manner and make negative impressions on supervisors and coworkers. The result? They end up losing the job they worked so hard to obtain.

You also have to realize that the mistakes you make at one job could stay with you as bad performance reviews, unfavorable references, and as part of your professional reputation as you look for another job. With that in mind, the following is a list of professional behavior guidelines to keep in mind as you start a new job:

Basic Professionalism	Outward Professionalism	Job Professionalism
Get any dental or medical appointments out of the way before you start a new job. You don't want to take off work early in your employment unless it's an emergency situation.	In any work environment you will confront situations that cause frustration. When that happens, it's always best to remain cool and control your emotions. Shouting matches and dramatics rarely work to your advantage.	Get a feel for the culture of your workplace. If it's a corporate, professional environment, a laid-back attitude won't get you far. If the workplace is more relaxed, it's probably not to your advantage to be overly assertive.
Be on time for work. Nothing says "unreliable" like repeated tardiness.	Keep your opinions and biases to yourself. It's very easy to alienate someone with a single poorly chosen conversation; it's a lot more work to overcome the damage done by that conversation.	Be patient with yourself. You aren't expected to know everything, especially when you first start your employment. Learning the ropes takes time, and impatience will lead to rash decisions and a poor attitude.
Come to work clean and well groomed. Yes, it sounds obvious, but poor appearance leaves a lasting impression.	Don't engage in gossip about co-workers or supervisors. First, it makes you look bad. Secondly, think about the people involved. How much would you like to hear rumors about yourself?	Team players are highly valued. Be one, whether through support or encouragement. Always be willing to help your co-workers and employer.
Dress appropriately for work. Don't wear a suit if your job is dirty and labor intensive. Likewise, don't wear a t-shirt to an office job at a law firm.	Maintain a positive attitude at work. Cynicism and moodiness only serve to alienate co-workers.	Another part of being a team player is shouldering your own workload. Don't make others set aside their projects to do your work for you.
Take the time to read the office manual on policies and procedures. Then follow it.	Similarly, make friends with and surround yourself with positive people who don't engage in gossip or play office politics. (Actually, this is good advice for life outside the office, too.)	Use your performance reviews as a learning experience. The criticism offered is meant to be constructive – to help both you and the company – so don't get overly defensive.
Keep your personal life separate from your office life. Don't address personal matters while you're on a company phone on company time.	Always remember to be diplomatic and polite. This can earn you nothing but respect at work.	Be willing to take on new tasks. By learning new skills, you enhance your résumé and make yourself more valuable to your employer.
Remember that the supplies and equipment provided to you are there to help you do your job, and are NOT there for your own personal use.		Finally, make yourself valuable to your employer, try to be "layoff-proof." At the same, however, you don't want to be so valuable in your current job that you'll never be promoted.

Other Career Options

Working for State Government

Pennsylvania is always looking for skilled, dedicated workers to fill state government positions. It's a job with considerable appeal, too. You'll serve your fellow Pennsylvanians, while holding a good-paying job with excellent benefits and the opportunity for advancement.

Contrary to what you may believe, government jobs are not all about paperwork in office buildings. The commonwealth has a wide array of employment opportunities in many different fields for those interested in government service. These include:

Accountants	Ecological Program Specialists	Mortuary Inspectors
Apiary Inspectors	Game Farm Workers	Nuclear Engineers
Auto Mechanic	Geologic Scientists	Nurses (both RNs and LPNs)
Bituminous Underground Mine Inspectors	Health Facility Quality Examiners	Pharmacists
Civil Engineers	Librarians	Revenue Enforcement Agents
Clerk Typists	Liquor Store Clerks	Speech, Language & Hearing Specialists
Driver License Examiners	Locksmiths	Utility Plant Operators
Early Childhood Education Advisors	Mass Transit Analysts	Vocational Rehabilitation Counselors
Drug & Alcohol Treatment Specialists	Milk Sanitarians	And many, many more

There are two agencies that oversee government employment:

- **The State Civil Service Commission (SCSC)** recruits employees for Civil Service positions with the state or local governments. Nearly 70 percent of the 80,000 state employees are Civil Service members. The SCSC's Web site lists all jobs open within the Civil Service, as well as a "Hot Jobs" link showing immediate vacancies. To be eligible for a Civil Service job, you must complete a written or performance test at an SCSC office location. You can find Civil Service applications and announcements online at www.scsc.state.pa.us.

- **The Bureau of State Employment (BSE)** handles non-Civil Service positions in the state government, most of which do not require testing. For more information, visit www.state.pa.us and enter "state jobs" into the PA Keyword box. There you will find information about job opportunities and internships through the BSE. The BSE also administers the Agency Temporary Services Division (ATS), which oversees temporary clerical services.

For commonwealth agencies in the Harrisburg area. For more information, contact the BSE at **717-787-5703**.

State Civil Service Commission Offices

Harrisburg

Second Floor
Strawberry Square Complex
320 Market Street
PO Box 569
Harrisburg, PA, 17108-0569
Phone: 717-783-3058
TTY: 717-772-2685

Philadelphia

Second Floor
10 South 11th Street
Philadelphia, PA, 19107-3618
Phone: 215-560-2253
TTY: 215-560-4367

Pittsburgh

Room 1503
State Office Building
300 Liberty Avenue
Pittsburgh, PA, 15222-1210
Phone: 412-565-7666
TTY: 412-565-2484

Start Your Own Business

It's a great feeling to "be your own boss." If you're self-motivated and have a creative streak, starting your own business might be for you. The Small Business Administration estimates that there will be 11.6 million self-employed business owners in the United States by 2006, a number that will likely increase in the future.

There are many advantages of being self-employed – including greater income potential. The average self-employed business owner earns five times more than the average working person. Plus, you decide what business you're in, and you choose what products or services your company offers. Ultimately, the work you do can be more fulfilling and rewarding.

But there are also risks to self-employment. The Small Business Administration reports that half of all new entrepreneurships fail within five years. And keep in mind, business owners are not guaranteed a steady income, sick pay, vacation time or a retirement fund. The hours at your own business may be long, especially at first, because you may find yourself handling tasks you wouldn't have to do as an employee elsewhere.

Do the risks of self-employment outweigh the rewards? Only you can answer that question. If you find the prospect of working for yourself and potentially making more money enticing, then entrepreneurship may be for you. But if you prefer the security of a regular paycheck and relatively predictable work hours, working for someone else would be a more appropriate option.

If you're serious about going into business for yourself, do some more research. Check out www.newpa.com or call **866-GO-NEW-PA** for more information (and possibly assistance) in starting a new enterprise. Also, be sure to visit the Small Business Administration at www.sba.gov, especially the "Starting Your Business" page, which contains a wealth of information on planning, financing and marketing your new business, in addition to many other topics.

If you are unemployed and want to start your own business, check out Pennsylvania's Self-Employment assistance program. For information, contact Pennsylvania CareerLink or go to www.newpa.com and enter "self-employment" in the search box. To find your local PA CareerLink office, go to www.pacareerlink.state.pa.us.

There are two sets of questions you should ask yourself when considering self-employment.

Questions About Your Personality and Skills

Am I a self-starter who doesn't need to be told what to do?

Can I get along well with others?

Do I recognize and act on opportunities?

Am I able to make plans, both short-term and long-term?

Can I live with risk, knowing that losing money is a possibility?

Can I communicate effectively?

Am I good at time management?

Do I have the ability to tolerate setbacks, whether minor or major?

Am I willing to work long hours for myself, especially at the outset of an entrepreneurial endeavor?

Questions About Your Business Idea and the Resources You'll Need

Is there a market for my product?

What expenses will I have (include licensing, taxes, equipment, inventory, rent, advertising, utilities and insurance)?

How will I find customers? What is the best way to advertise and how much will it cost?

Who is my competition? How loyal are their customers? How much do they charge, and can I afford to charge less to win customers?

Do I have the skills to run a business like this, or will I need to hire a skilled staff?

Is there a supply of qualified employees where I want to locate my business?

Where can I get expert assistance with any questions I might have about running a business (including accounting, legal or insurance advice)?

Do I have the money for start-up costs, or will I have to rely on outside investments or bank loans?

Did I write a business plan?

Special Needs

Child Care

Parents entering the workforce often have an overriding concern: Who will take care of my child while I am at work? For many workers, day care is the most realistic answer. If you choose this option, there are a few things to keep in mind:

- Find a child care provider able to accommodate your work schedule and transportation needs.
- Check on availability of the child care provider as soon as possible. Openings in child care centers are often hard to find in some instances.
- If your child has special conditions or needs, find a provider who can meet them.
- Financial assistance may be available for families meeting certain work schedules and income requirements. Call the Pennsylvania Department of Public Welfare at 1-877-4-PA-KIDS to contact your county Child Care Information Services office for more information.

Welfare-to-Work Program

Welfare-to-Work programs assist low-income or other hard-to-employ individuals gain employment or job training. Pennsylvania's program targets:

- Recipients of Long-term Temporary Assistance for Needy Families (TANF)
- Unemployed and underemployed non-custodial parents with child-support obligations
- TANF recipients with characteristics predictive of long-term welfare dependence, such as no high school diploma, teenage pregnancy, poor work history, disability that does not prevent employment, or youth

The Welfare-to-Work program provides case management, job preparation, job search and placement, and other services to those who qualify. Contact your local PA CareerLink office for more information.

Disabilities and Employment in Pennsylvania



If you have a disability, don't let it deter you from pursuing your career dreams. The Pennsylvania **Office of Vocational Rehabilitation (OVR)** can provide you with vocational evaluation, counseling, training and placement, and assistive technology. OVR can also connect you with other organizations to meet your specific needs.

Bureau of Blindness and Visual Services (BBVS) The BBVS provides Pennsylvanians who are visually impaired with vocational counseling, job training and placement, transportation, and interpreter/reader services. We can even arrange to have a staff member come to you to take your application.

Hiram G. Andrews Center (HGAC) This organization oversees a comprehensive program of services featuring the integration of education, counseling, evaluation, life skills and physical restoration. HGAC offers a variety of certificate and degree programs through their affiliation with Penn Highlands Community College, and provides internships and externships to help students obtain work experience. On-campus living facilities and financial aid are available to students.

Office for the Deaf and Hard of Hearing (ODHH) The ODHH helps individuals who are hearing impaired join the workforce and serves as an intermediary between their clients and prospective employers. ODHH encourages any Pennsylvanian who is hearing impaired and has questions to contact them.

Pennsylvania's Online Disability Resource is available at **www.accessiblePA.state.pa.us**.

The site offers an array of information about programs for Pennsylvanians with disabilities including education, housing, transportation, vocational rehabilitation and many others. You can also find links to other state agencies that offer assistance to those with special needs.

Phone Numbers for special needs agencies:

OVR: 800-442-6351

BBVS: 800-622-2842

ODHH: 800-233-3008

www.nfb.org: National Federation of the Blind

www.afb.org: American Foundation for the Blind

www.gallaudet.edu: Gallaudet University, which has many well-regarded programs for those who are hearing impaired.

Resources for Veterans

You may be surprised to know that more than 21 million veterans have received education and training benefits since the GI Bill began in 1944. In 2004 alone, Veterans Affairs helped pay for the education and training of 480,000 veterans, active-duty personnel, reservists, National Guardsmen, and survivors.

An important benefit of serving in the military is being entitled to a wide range of educational, career and employment services. By law, Pennsylvania CareerLinks must give priority to veterans over other job seekers. Pennsylvania CareerLink's staff of specially trained Local Veterans Employment Representatives provide vets with a full range of employment services, from job matching to referrals to government veteran service agencies. Additional priority is given to disabled veterans. An emphasis is placed on helping veterans with service-connected disabilities successfully re-adjust to civilian life.

The Veterans' Program also includes a statewide initiative to bring comprehensive outreach and assistance to veterans and their families throughout the commonwealth. This initiative is administered through a network of five Governor's Veterans Outreach and Assistance Centers (GVOAC's) and two Special Veterans Centers, which serve as a link between individual veterans requiring assistance and the organization which can best meet their needs.

Planning on leaving the service?

Check out Pennsylvania's Transition Assistance Programs (TAP). The state offers job-search assistance and related services to separating service members during their period of transition into civilian life. This program is available at the following locations:

Willow Grove Naval Air Station
Carlisle Barracks
New Cumberland Defense Distribution Center Susquehanna

Pennsylvania CareerLink

www.pacareerlink.state.pa.us

One-Stop Services

Veterans Services

1-800-54-PAVET

Veterans Affairs

Pennsylvania Department of Military and Veteran Affairs

www.vets.state.pa.us

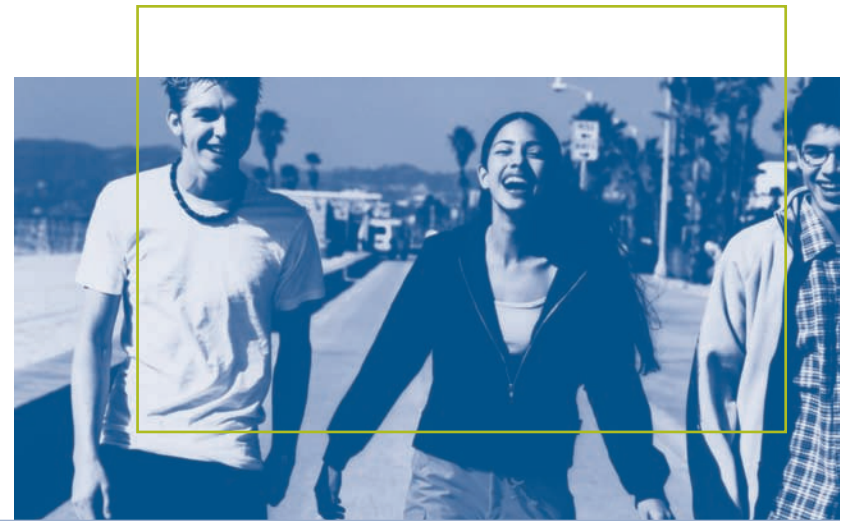
1-800-54-PAVET

U.S. Department of Veterans Affairs

www.va.gov

1-800-827-1000

More information on the GI Bill and other veterans' programs can be found by contacting the Pennsylvania Department of Military and Veteran Affairs or the U.S. Department of Veteran Affairs.



Pennsylvania Conservation Corps

The Pennsylvania Conservation Corps (PCC) is a public works program that gives young Pennsylvanians a dual sense of purpose. You have the chance to learn workplace skills through experience and on-the-job training, while carrying out conservation projects that provide a public benefit. One example of the work done by the PCC is the restoration of historic landmarks.

To join the PCC, applicants must be:

- PA residents between the ages of 18 and 25 (with 16- and 17-year-olds admitted under special circumstances).
- Unemployed and not enrolled in school full time.
- Able to perform labor-intensive work.

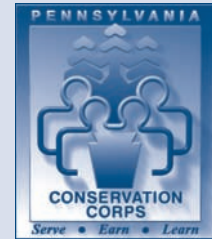
The PCC gives enrollment preference to economically disadvantaged youth and encourages women, minorities and the disabled to apply. If hired, PCC employees are offered a one-year term of service (which can be extended an extra six to 12 months). In exchange for their service, employees receive the following:

- A salary of \$6.25 an hour, with a 10 percent raise after six months.
- A \$1,000 cash bonus for completing the one-year commitment. There is also the possibility of receiving education awards up to \$4,725 that can be used for tuition or to pay off existing educational loans.
- The opportunity to develop job and life skills, self-confidence and a citizenship ethic.

More than 14,000 young Pennsylvanians have served in the PCC and have completed in excess of 1,000 projects. Most PCC employees leave the program for positive reasons – such as finishing their term, returning to school, joining the military, or finding other employment.

**For more information on the Pennsylvania Conservation Corps, visit www.state.pa.us
Keyword: PCC**

**You may also send an e-mail to pcc@state.pa.us,
or call 888-577-4722.**



Looking For More?

www.paworkstats.state.pa.us

www.paworkforce.state.pa.us

www.pacareerlink.state.pa.us

www.pde.state.pa.us/bcte

What's Your Opinion? Tell Us What You Think

Your input is always appreciated and helps us improve the PA Career Guide each year. Please complete our online survey - it will only take a minute of your time and will help us better serve you!

www.state.pa.us

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www.pde.state.pa.us